

Journal Science Dept

ap.

Farm and Ranch Review

LIV
VOLUME ~~IV~~
NUMBER 5

APPLIED SCIENCE READING ROOM

CALGARY, ALBERTA
MAY, 1958



BARD
S
560
F225
v.54:
no.5
1958

• *New 'Blood' In The Senate*

• *Mastitis Control Is Urgent*

• *Harvest Depends On Seeding*

• *Hell Bent For The 'Peace'*

EVERY DAY — *Good Listening* — FOR EVERYONE



COFFEE with CORRIGALL

6:00 - 9:00 a.m.
DAILY



LADIES' CHOICE

9:10 - 11:10 a.m.
DAILY



ROLLING HOME

5:00 - 6:00 p.m.
DAILY

ASSIGNMENT

8:00 - 8:30 p.m.
MON. to THURS.



Keep Informed with . . . **RADIO CFQC**

'Round the clock
NEWS BROADCASTS

Featuring

The World Today
at 12:15 p.m.

and

THE WORLD TO-NIGHT at 11:00 p.m. with
17 supporting News Casts from 1:00 a.m. to
12:00 Midnight.

Listen to the CFQC Public Service Feature
for the Farmer of Tomorrow . . . **Saskatchewan**
4H Club Broadcasts . . . 4:45, Saturday after-
noons.



Bill Cameron . . . CFQC News Director

CFQC

600 on any Radio Dial

THE FAMILY CLINIC

1218 Centre St. N.,
Calgary

Specialized Treatment
for

Arthritis & Backpain
Colitis & Indigestion
Chronic Constipation
Asthma & Bronchitis
Nervous Disorders
Sinusitis & Migraine

Dr. L. P. Langley

Dr. Orval C. Keller

Phone 7-1406

Chiropractic - Naturopathic

"STEVE" formerly of the
Avenue Grill

Invites you to come as you are at

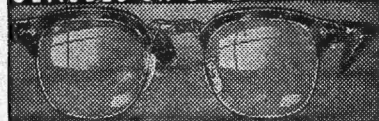
MELDON'S RESTAURANT

112 SEVENTH AVENUE WEST

When in CALGARY bring the
whole family to our Spacious, Air-
conditioned Dining Room and en-
joy good food. All welcome

We are Open at all hours, including
Sundays.

GLASSES on 30 DAY TRIAL!



For far or near — SAVE UP TO \$15.00

Send name, address, age for Free Eye Tes-
ter. Latest Style. Agents Wanted
FREE! Catalogue and full
information.

VICTORIA OPTICAL CO., Dept. T297,
276 1/2 Yonge St. Toronto 2, Ont.

Farm and Ranch Review

Western Canada's Pioneer Agricultural Magazine

Vol. LIV.

Founded in 1905 by Charles W. Peterson

P.O. Box 620, Calgary, Alberta

Editor — William N. Love, B.Sc. Agriculture

Published Monthly by Farm and Ranch Review Limited

Printed by Western Printing & Lithographing Co. Ltd.

Authorized as Second Class Mail — P.O. Dept., Ottawa

Member of the Audit Bureau of Circulations.

SALES REPRESENTATIVES:

EASTERN OFFICE: W. H. Peirce, Room 410, 86 Bloor St. West, Toronto 5, Ontario.
U.S. MID-WEST: M. B. Bock, Baker Building, 7th Street and 2nd Avenue, South,
Minneapolis, Minnesota.

WINNIPEG: E. Gordon Lowen, 257 Osborne Street, Winnipeg, Manitoba.

WEST COAST: J. R. Armstrong, Dominion Building, 207 West Hastings, Vancouver 3.

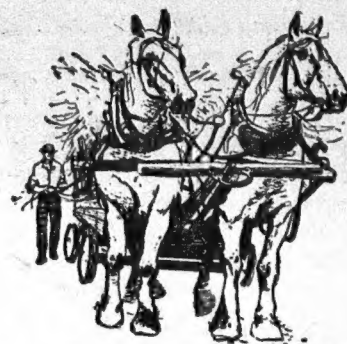
CALGARY: F. C. Loney, 2nd Avenue and 6th Street West, Calgary.

SUBSCRIPTION RATES: To bona-fide farmers residing in B.C., Alberta, Saskatche-
wan and Manitoba when remittance is made direct to our office, 15c for one year,
25c for two years, 50c for five years, to all others \$1.00 a year.

DISPLAY ADVERTISING RATES: — 90c per agate line.

CLASSIFIED ADVERTISING: 12c per word per insertion. Minimum charge for
Classified Advertising, \$2.50.

No. 5



ABSORBINE

keeps 'em

on the job

Old timers who know horses and
horse care are never without
Absorbine. It's the recognized
antiseptic veterinary liniment
that can help catch a spavin
before it settles... help clear up
a hardened condition like ring-
bone. A large bottle costs only
\$2.50 at any druggist.

W. F. Young, Inc., Montreal 19, P.Q.

Contents—

Editorials	5 and 6
Wheat and Chaff	7
New "Blood" in the Senate	8
Harvest Depends on the Seeding	10
Nutrition yields its secrets	12
Our Best Birds, by Kerry Wood	14
Treated Seed Means Bigger Crops	16
Mastitis Control is Urgent	18
Moose Hunt by F. A. Twilley	22
The Electric Hen	24
Pellets	28
Hell Bent for the "Peace"	30
Aunt Sal, and Aunt Sal Suggests	32
Letters to the Editor	36

Send money by
**CANADIAN
NATIONAL
EXPRESS**
Money Order
Safe • Convenient • Payable at Par Everywhere
For Sale at all
**CANADIAN NATIONAL RAILWAYS
STATIONS and EXPRESS OFFICES**

ALBERTA'S LARGEST HATCHERY

STEWART'S SPECIAL STRAIN CHICKS

BBB TURKEY POULTS DUCKLINGS - GOSLINGS BARGAIN P-R-I-C-E-S

For Immediate or Future
Delivery to July 1st

Special Strain Chicks	Unsexed Pullets
White Leghorn	100 100
Barred Rocks	14.95 29.50
New Hampshire	15.95 24.50
Light Sussex	15.95 24.50
White Rocks	15.95 24.50
Black Australorps	15.95 24.50
Hampbars	15.95 24.50
Leghorn X Hampshire	14.95 29.50
Leghorn X White Rock	14.95 29.50
Hampshire X Sussex	15.95 24.50
Hampshire X Barred Rock	15.95 24.50
On Orders Less Than 100 Add 1c per Chick.	

COCKEREL CHICKS	100	50	25
White Leghorn	4.95	3.00	1.50
Leghorn-Hampshire	8.95	5.00	2.50
Heavy Cockerels	16.95	9.00	4.50

Ducklings	100	50	25	10
Toul. Goslings	45.00	23.00	12.00	5.00
	160.00	82.50	42.50	17.50

EXTRA QUALITY NICHOLAS

BROAD-BREADED

BRONZE TURKEY POULTS

Lots of 1,000, 72c each; 500, 74c each;
100, 75c each; 50, 78c each; 25, 80c each;
10, 85c each

Write for 1958 Illustrated Catalogue
and Prices.

STEWART HATCHERIES

602B-12th Avenue West, Calgary, Alta.

A-M
TRADEMARK
SPRINKLER
IRRIGATION
-Your Pipeline
To Profit
BETTER
PASTURES
BIGGER
CROPS
LESS
LABOR
UTILIZE DITCHES, SLOUGHS, CREEKS
DUGOUTS.
Why risk waiting for rain? Why suffer
crop failures from drought? With A-M
portable sprinkler irrigation equipment
you can utilize a ditch, pond, creek or dug-
out and get EXACTLY the amount of
water you need — when you need it —
where you need it.
GET BIGGER CROPS — BETTER
PASTURE
Whether it's a wheat field, a pasture or a
garden you want to irrigate depend on
light, tough, easily moved A-M aluminum
sprinkler equipment for the most efficient
economical operation.
A COMPLETE IRRIGATION SERVICE
TEN YEARS' EXPERIENCE designing
and installing sprinkler systems in Western
Canada. Complete stocks of aluminum
tubing, couplers and fittings, sprinklers,
gas and diesel engines, plastic pipe. Trac-
tor P.T.O. pumps and other pumps in all
sizes and capacities.
Complete Information FREE.
No Obligation. WRITE US TODAY
**SPRINKLER IRRIGATION
& EQUIPMENT CO. LTD.,**
767 - 9th AVENUE E., CALGARY, Alberta



CCC

Pressure-Treated

FENCE POSTS

Outlast The Finest Wire

6' Posts (21 lbs.)	60c
3" to 3 3/8" Tops. Price, each	
6' Posts (30 lbs.)	75c
4" to 4 3/8" Tops. Price, each	
8' Posts (64 lbs.)	\$1.35
5" to 5 3/8" Tops. Price, ea.	

Other sizes available.
Prices F.O.B. Calgary.

Plans and quotations available for
all types of Pressure-Treated Pole-
Type Farm Buildings.

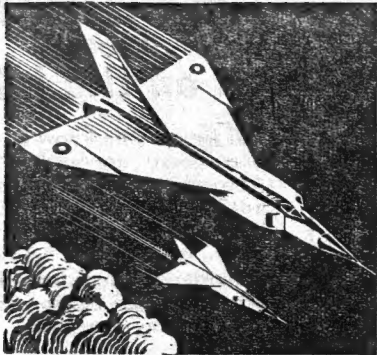
Write for descriptive pamphlet.



**REVELSTOKE
SAWMILL Co. Ltd.**

2303 - 11th Street S.E.,
CALGARY, ALBERTA

INCO RESEARCH HELPS CANADA GROW



Testing at Inco laboratories

Inco laboratory technicians use this testing machine to help develop high temperature alloys. The information obtained helps Inco scientists — and industry — select the metals that will perform best at high temperatures.



INCO RESEARCH helps beat heat

The raging inferno inside a jet engine. The blazing depths of an industrial furnace. Even the heating elements in electric ranges, toasters and other household appliances. All these present hot metal problems.

Inside a jet engine, for instance, temperatures may reach 1600°F. Hot enough to make some metals soft, other metals brittle. But jet engine parts can take the blistering punishment of extreme heat. Furnace parts stand up to their job, too. So do heating elements in home appliances.

Why? Largely because of design and metal research. For many years scientists at Inco have been conducting special experiments

with nickel. This hard tough metal, when combined with other metals, adds remarkable resistance to heat and corrosion.

Out of this research came a whole new range of high temperature nickel-containing alloys—such as Inconel*, used in jet engines, and Incoloy*, for tubular sheathing on electric range elements.

When requirements call for metals capable of withstanding still higher temperatures, when jet engines develop greater power—and generate greater heat—Inco research will be at work developing new alloys to do these jobs well. That's how Inco research helps Canada grow.

*Trademarks

Write for a free copy of the 32-page illustrated booklet, "The Exciting Story of Nickel".



THE INTERNATIONAL NICKEL COMPANY OF CANADA, LIMITED
55 YONGE STREET, TORONTO

PRODUCER OF INCO NICKEL, NICKEL ALLOYS; ORC BRAND COPPER, TELLURIUM, SELENIUM, PLATINUM, PALLADIUM AND OTHER PRECIOUS METALS; COBALT AND IRON ORE

Editorials . . .

Economies start

. . . somewhere

A journey of a thousand miles starts with one step

It was refreshing to hear Agriculture Minister Douglas Harkness state publicly that he was all for cutting extravagance in his department . . . and that he had taken the first small step in that direction. The farmers, who already subsidize the nation with low-priced produce, should be the very last ones to whittle away at the one department of government that is doing most for them. But one has to start somewhere.

Mr. Harkness stated that he has cancelled a policy he had inherited from the Liberals, whereby his civil service staff was automatically increased by two per cent yearly whether personnel were needed or not. He had thereby checked one of the many little things that is boosting the size and interference of big government in every field. This detail, alone, would have automatically in-

creased the size of the Department of Agriculture by 22 per cent since the war, even if absolutely no increase were justified.

The Canadian taxpayers can hope that this practice of cutting extravagance is contagious. There is simply no reason — and particularly in a recession period — why whole departments cannot be abolished as well as most others whittled down. Not only have some 30 semi-independent Federal boards or commissions come to life in Ottawa, but they are expanding.

Why, for example, does the government have to pay large staffs to collect material for, edit and prepare and then publish the thousands of government pamphlets on every thing from how to collect butterflies to how to throw the javelin. The public is sometimes asked to pay a nominal sum for these

pamphlets, but none of these make a profit for the government, and, even if they did, it would then be in a publishing business it shouldn't be in.

Human nature being what it is, every civil servant in the government apparently feels that the public doesn't fully realize the splendid work that is being done in his particular department. "Let's publish a booklet on fine paper and with splendid pictures of ourselves, and issue it to the public." There are many departments in this publishing rut who have established some sort of a sheet and now have a deadline to meet whether the material has reading value or not. They therefore spend considerable time dreaming up useless things to write about and hand out in a government publication — often straight feature material that should appear more properly in the week-end magazine section of a daily.

A member of the Alberta Legislature recently defended some provincial expenditures by showing that the federal government was wasting money too. (This, in itself is warped logic.) He read from a Federal pamphlet called "good grooming for women" which gave handy hints on taking daily baths, how to use lipstick and eyebrow pencil, when one shouldn't eat garlic, and other priceless information that the taxpayers cannot live without.

Certainly Federal spending is no justification for Provincial waste. We could do with less government waste at all levels.

The principle of the least government being the best government is as true today as it has ever been.

Big shoes to fill

A MIGHTY big pair of shoes stand empty following the resignation of Mr. George McIvor as Chairman of the Canadian Wheat Board. It will take a big man to fill them as well as they have been filled in the past.

At the time of reading this a successor may have been found, but at the time of writing the entire grain trade is waiting with great interest to see who is to be appointed.

It will not be an enviable assignment with current marketing problems increasing the pressures from several angles. Mr. McIvor also had his own peculiar problems to face with a long series of difficult situations, but he was admirably equipped and trained to surmount them and has earned the respect of the farm people across the prairies.

Entering the grain trade at the age of 15 as a messenger boy on the floor of the grain exchange, he worked his way up through the sales and marketing divisions, with responsibility for the handling of millions of bushels of prairie grain. He served for a period as General Sales Manager for the Wheat Pools and was ultimately appointed chief commissioner of the Wheat Board in 1937, where he served until his resignation.

His successor takes over the reins in the face of mounting surplus problems. The U.S. winter wheat crop, favoured by good weather throughout most of the winter has never looked better, and it alone is now contributing to the world wheat surplus more than the present entire annual world trade in wheat and flour. This new contribution

amounts to about 60% of the total new wheat supplies on North America. While this bumper crop may not be a surprise, it will not be a solution either.

Mr. McIvor's well-earned prestige and the confidence he has earned from prairie farmers would give him the breathing space the position demands while he exerted his great tact and diplomacy, not to mention experience and intelligence, in working out a solution.

His successor must win his own spurs. He has, indeed, a large pair of shoes to fill.

It costs to expand

THE cost of land seems to be going up with the speed of a guided missile these days, with everybody trying to enlarge his operation to a more efficient size.

Although change of ownership continues all the time, an important contributing factor to boosting land costs, is the competition from adjoining land owners to slice up a neighboring farm to add small tracts to the adjoining home farm bases. Farmers might pay a comparatively high price for a small tract, who probably couldn't raise the total capital to buy the whole farm at lower rates per acre.

If the trend continues, the farms will become larger and larger, and when one is sold the divisions will be correspondingly larger. Then the neighboring farms will grow by leaps and bounds in an increasing snowball effect . . . if they have the capital!

The University of Illinois has made a study of the costs of farm expansion and where it pays off. They point out that a farmer in their market might reduce the cost of his operations by \$18 an acre a year if he were to add 80 acres to his present 180-acre farm. However, the farmer must not lose sight of the fact that farming is an uncertain business and the expected economies may not always evolve. If all the extra earnings would be nullified by the high expense of the added acreage or written into a mortgage, the farmer might not be better off for a long time than he was before. These principles are just as applicable to prairie farmers as those in the eastern U.S.

The trend to larger farms will no doubt continue, but the competition for land may ease materially if the recession lasts.

Financial box score

In the ten-year period beginning 1947:

Canada's gross national product increased 100%.
Salaries of industrial employees increased 77.3%.
Wholesale prices of goods increased 39.5%.

BUT, for the same period:

The cost of goods and services used by western farmers increased 50.3%.

AND

The average return a farmer received for his wheat dropped 20.8%.

Growing pets

IT was Ogden Nash who said, "The trouble with a kitten is that, eventually it becomes a cat."

This applies to governments as much as to cats. Public apathy to the growth of the civil service permits the mixed blessings of the welfare state to grow into a hungry bureaucracy . . . all in all, a costly and overpowering pet to keep about the house.

History shows us that creeping socialism reaches its peak with the totalitarian state, but its early development is made in any free society which permits it to grow.

Italian newspapers — who are in a position to know — raised a furor about a year ago that nothing had been done in the post-war years to whittle down the Italian bureaucracy which under Mussolini had grown beyond imagination. A special government bureau was then set up specifically to clean house.

What has happened to this new bureau?

The Milwaukee Journal reports that since the start of its campaign to cut the civil service and the number of unnecessary departments, it has progressed with such healthy vigour that its staff has now grown to a robust 600. Unfortunately, it hasn't closed down a single bureau.

Seemingly without embarrassment, the new department reveals that it has discovered a government bureau that still exists for maintaining the aqueducts of Albania, although Albania has been in the hands of the Communists for 13 years. It has also found a bureau which supervises projects in Ethiopia, which Italy lost in the war. There are others.

It would appear that the Italians have not completed their post-war recovery from totalitarian influences. We in Canada, don't have quite so far to go, but we must be alert to creeping socialism in our own country. Canada has many examples of unnecessary government staffs which are using public funds to duplicate services already provided by private industry.

A pet is a nice thing to keep about the house, but if it gets too big it may crowd you out.

Power corrupts

THERE seems to be a contradiction of aims on the part of the World's labour leaders.

The governing body of the International Labour Organization has made a special and urgent plea to all governments for more freedom. The wording is rather a mouthful, but it asks that "all governments ratify and apply the Freedom of Association and Protection of the Right to Organize Convention, and the Right to Organize and Collective Bargaining Convention."

Boiled down to basic English, this is the laudable movement to bring more freedom to organized labour in countries where real union freedom does not exist.

We on this continent, who are learning with considerable strain and difficulty how to live with organized labour, might well wonder why such a basic freedom has not long

since been established in all so-called civilized countries. But the reason is simple. Opposition elsewhere to the freedom to organize and associate is fostered by the very real fear that labour organizers will not accept the responsibilities that go with the privileges; that they will lead their members down the garden path to deny for others the very freedoms they have demanded for themselves. Unfortunately, power corrupts!

In many countries — including Canada — big labour has achieved the Right of Association to give it the power to use violence and force to prevent it for others. International Labor Organizers with headquarters in the United States are able to force the closed shop on both employers and employees in Canada. This is quite the opposite to Freedom of Association and the Right to Organize. The recent U.S. investigations reveal also that thugs and racketeers have taken advantage of their position in other ways, and have built up economic empires at the expense of the worker.

It is no wonder that labour leaders are meeting with opposition around the world as society as a whole tries to weed out the undesirable elements of unionism.

Meantime, the public, legitimate business, and the honest craftsman who deserves his privileges are the ones who suffer.

Not pie in the sky

WE have a soft spot in our heart for the cracker-barrel philosopher who pointed out that man has two ends — one to sit on and one to think with, and his success depends largely on which he uses most. It's as simple as that — heads you win, tails you lose.

It popped into mind again the other day when we ran across a report of a turkey farmer in Wales by the name of Gordon Llewellyn. He was having the usual troubles that face turkey farmers everywhere. He couldn't find a satisfactory market, and his operation was too small to influence either general production or prices.

But instead of sitting on one end and crying for help from the government, Llewellyn tried the other end.

He set up a little turkey pie factory. This little bit of ingenuity grew by leaps and bounds until he had his own small integrated operation, and today his business has reached the point where he breeds, rears, fattens, kills and cooks his own stock on his own farm and can't fill the growing demand for his turkey pie. He now has four brothers working in his business and between them they turn out 50,000 birds a year in steaming turkey pies.

Farmer Llewellyn's originality and initiative was not without its own special complications. He picked the recipe for his first pie from a cook book, but forgot the salt. Later pies were a success and a building was adapted to the cooking operations.

He pulled himself up by his own bootstraps while most of his associates were still sitting waiting for help to arrive. There is quite possibly a moral to farmer Llewellyn's example and it may be summed up in a statement by George F. Kennan, Professor of History at the Institute for Advanced Study at Princeton University; "I sometimes wonder

whether it is not true that only those who are really worth helping are those who are determined to succeed whether one helps them or not."

This is something to think about. Opportunities keep appearing from unexpected directions, but we must be willing to grasp them when they do appear.

Really, there are no limits to the ingenuity of the human mind.

Farmers or labourers

THERE are few things really new in this world of ours . . . and this includes contract farming, agribusiness or what is called vertical integration.

For centuries farmers have contracted to produce specific goods for specific markets, or distributors have contracted to handle all of a certain product for certain farmers. Co-ops have dabbled in this to varying degrees, finding that it often cuts costs and provides special services, and also brings some stability to their operations.

But post-war competition has speeded up the trend to make binding contracts leading to more efficiency and protection. Vertical integration has reached a point in areas of the U.S. where the overall operation is controlled by a promoter rather than a farmer or distributor. The broiler industry makes the best example where an operator provides the chicks, the feed, the housing and the markets through a series of integrated contracts, while the farmer feeds the birds and does the chores. By operating on small margin but great quantity the promoter pretty well corners the broiler business over a considerable region.

Eventually, these big operations could supply the bulk of the demand, especially near the large population centres, but the small farmer could still operate in his own limited sphere. Nevertheless, this could conceivably change much of our rural society over a period of time. It could divide many of our present farm producers into owner or management, and the labouring classes. Whether we like it or not, and for better or for worse, if it proves to be an economic trend, then it will inevitably take place. Our problem is to adapt ourselves to the idea and turn it to our own purpose.

Society is changing rapidly. We must change with it or lose out. Life is a challenge. We suggest that farmers do a little thinking about what is happening to their way of life and be prepared to meet these inevitable changes head-on. For example: why shouldn't the farmers themselves, run the whole show?

Farmers might have to decide sooner than they realize, who is going to take over whom? Are the farmers to be their own bosses, with the risks and rewards, the authority and the headaches, the responsibilities and the privileges? Or are the farmers to be the common labourers with small risk and therefore small reward, no authority but peace of mind, no responsibilities and, of course, no freedom of action.

The decision is even now being made for many farmers. The handwriting is already on the wall for those who want to turn their problems over to others — including the government — for solution.

Bee studies at Beaverlodge

IF you can put a harness on a hive of bees they'll work hard for you. That's the conclusion of the bee experiments at Beaverlodge experimental farm. Three years of study on honey bees suggest that one colony per acre is the economical unit for production of alsike seed. No significantly greater yield of seed resulted when as many as three colonies per acre were used.

Striking, however, was the difference in seed yield when no honey bees were introduced. The yield when the chief pollinators were wild bees and the odd honey bee that chanced along, was 60 pounds per acre. But with one colony per acre added, yield of seed jumped to 360 pounds per acre.

The studies are continuing into the bees' preference for crops and their behavior. Crops like sweet clover, red clover, alsike and rape will be sown in close proximity and visits of the bees carefully observed.



A little wheat— —a little chaff

by Ivan Helmer

There is no "tight" policy on borrowing trouble.

It seems there is nothing meaner than a mean man: A woman of Chicago obtained a divorce because in twenty married years she had lived in a house furnished only with second-hand grocery crates. Her husband refused to spend money on furniture. Further, he had a governor put on the furnace so she couldn't chisel with the heat.

Unless it is a mean woman: In France a happy groom, friends, and relatives delayed the wedding celebration to wait while the bride returned from washing her hands. She didn't. That is she didn't return — she apparently washed her hands, especially of the whole business, and disappeared with the groom's life savings, all the loose jewellery she could lay her clean little hands on, and the guests' purses.

The parrot, observes a bird student, is the only creature, able to talk, that is content to repeat just what it hears without trying to add or detract anything that might make a good story.

A handy gadget, particularly for burglars, is now on the market. For \$2.00 (in the U.S.) you can get yourself a screwdriver with a built-in flashlight, to lighten your work.

If you have been concerned about it: the record for continuous sleep in dormance, is claimed to be, 6 months and 23 days.

What value should a wife place on a husband (don't get inflated, friend)? In Britain a woman is on trial charged with supplementing her two husbands' feed with phosphorous, a diet which resulted in no husbands. The court was told that the widow netted \$77.00 from the deaths of both husbands — or, \$38.50 each.

A Scotch farmer is supposed to have reached this conclusion: "Dogs look up to you. Cats look down on you. But pigs consider you their equal."

Truly this is the age of bluff. No one knows, anymore, if a man owns his car, his home, his farm, his TV, or if he is in silent-partnership with the finance company. Soon we won't even be able to tell if he owns the shirt on his back. An Eastern firm has begun a rent-your-shirt deal. They start you out with 5 of 11 new shirts. The rest are delivered the following week, the dirties picked up, laundered, and re-delivered the next week for \$1.85 per week ad infinitum, or until the laundry loses its own shirts.

If money is the root of all evil, there should be more good people than there seems to be.

Possession of a book means more than the reading of it; a book has advantages and value far beyond what can be gained from a borrowed copy.

Prices of books in this country are high. The reason for it is difficult to justify. A book, for example, published in Britain which costs 15 shillings — about \$2 — costs twice as much when exported to Canada. Books for sale in the United States, which cost \$5, cost \$7 here. We have said before and sincerely believe it to be true: It costs more to be well-read in Canada than in any other country in the world.—The Peterborough Examiner.

It was bound to come — a man in Hamilton was arrested and charged with operating a car equipped with an 8½-inch television set in its dashboard.

An old-time farmer-philosopher was holding the floor in the village general store. "You say the government ought to put price floors under everything. Just suppose for fun they'd o'

put a floor under horse-collars — who do you suppose we coulda give all them horse collars to?"

More burglars like the ones in Glasgow, Scotland, who took the safe from a large store might help farm surpluses. The burglars used 18 pounds of BUTTER to grease the floor, to slide the safe to the back door, to load it in their truck.

And in St. Johns, Newfoundland, an M.P. was presented with a plaque, by one of his constituents, which read: "Nothing is more opened by mistake than the mouth."

The spinster and the bachelor undoubtedly have many bad points that they have never even been told about.

Class distinction is getting stronger in Britain. The Brewers' Association say that 4,750,000 old-age pensioners are being done out of the local gossip, and the warm social life of the pub, as well as their daily pint, by the high tax on beer.

Most women don't mean any harm by lying about their ages; they honestly think they don't feel as old as they look.

Possibly the main reason for the Liberals being "left at the post" was their failure to get out into the hair-roots of the country. Members are still getting 35c haircuts at the House of Commons' barber shop with the difference between the floor price of \$1.25 presumably coming out of the till. With Union barbers all over the country drumming this fact into a captive clientele it may just have made the difference. The P.C.'s might be wise to do away with this cheap trim.

It's not hard to put a finger on the worst fault of a great many people, generally speaking.

Kathleen Norris, the famous novelist once wrote: "Until a girl is 18 she needs good parents. From 18 to 35 she needs good looks. From 35 to 55 a woman needs personality, and from 55 on the old girl needs CASH."

A British radio speaker, Andre Drucker, says: "The pathetic thing about us human beings is that we are born without a sense of collective memory. We don't learn from history because we don't remember. We can't remember that the world was in chaos again after the seventh day of creation, and that ever since the young have blamed the old for it and have been in turn blamed by the generation that followed."

There is talk, along deserted back roads, in quiet cellars, and the other festering places of subversive thought, (always with a sharp look-out being kept against the approach of woman) of a movement demanding equal rights for men.

A woman in a coffee shop was heard telling a younger woman (not her daughter let us hope): "Some men aren't changed a bit by marriage — they were mice in the first place."

Many of the so-called backward nations are pathetically eager to modernize. At a world police meeting in Rome, the western delegates, one by one read off statistics on grisly crimes. The Burmese delegate, when it came his turn, got up rather sheepishly. "I must apologize," he said, "I have no figures on this last matter. We are a backward country and have no sex crimes. But as our civilization catches up we may do better. Perhaps at our next gathering we will have some good statistics on this subject."

Bigamy carries its own punishment.

One thing about an election campaign such as we have just suffered is that people have had all the free speech they want for a considerable while.

It couldn't happen here: Two Japanese students recently committed suicide because on second attempts they still failed to attain high enough marks to enter Tokyo University. We did hear of a father here, though, who wasn't near as worried about all the P's, for Poor, on his son's report as he was about his only good mark, an A for Effort.

New "blood" in the senate

by Joe Balla

WHEN Head Chief Red Crow of the South Bloods marked his "X" on Sept. 22, 1877, on a history-making document — Treaty No. 7, which placed the Indian on the reserve and brought peace to the western plains — he said: "As long as the rivers flow and the grass grows, there shall be peace. Someday the Indian and the Whiteman shall be as one."

Since that time the rivers have continued to flow, the grass has grown and there has been peace. But it wasn't until almost 81 years later that the latter part of Red Crow's short history-making speech was fulfilled.

On Feb. 1, 1958 — for the first time in Canadian history, an Indian, 70-year-old James Gladstone, of southwestern Alberta's Blood reserve, was appointed to the Canadian Senate . . . hailed by Canada's 165,000 Indians as one of their greatest single advancements — a voice in Ottawa—since the signing of Treaty No. 7.

To the Indians it meant a break in the racial barrier, a voice when they needed one and also a kind of a social upheaval. The Red Chamber in Ottawa is at the top — at least in prestige — and one of their own tribesmen could make himself heard.

But don't take Senator Gladstone wrong. He's not the type of a man who is going to tear up and down the plush carpets of the Upper House with a tomahawk in his hand — ready to claim the scalp of the first peer who utters a wrong word.

Although he is quite prepared to march into the Senate with full ceremonial dress, he will do it to attract attention to his 165,000 fellow tribesmen rather than to himself. If you should happen to meet the new senator on the street in Cardston where he lives, you might not even recognize him as an Indian.

Senator Gladstone is slight built, always speaks in a calm, low voice — and certainly not in the booming voice so often attributed to speech-making senators in cartoons.

He was born on May 18, 1887, at a lumber sawmill called Mountain Mill, eight miles west of Pincher Creek — the heart of southwestern Alberta's foothills. His mother was a full-blooded Blood Indian. She died while young Jimmy was at a boarding school at an Anglican mission in the 1890's.

The new senator's grandfather was William Shanks Gladstone, a pure Scotsman, who was the son of John Thomas Gladstone. When he was 18 years old in 1848, William Shanks Gladstone came west from his native Montreal to work as a boat builder for the Hudson Bay Company at an annual salary of 10 English pounds. He died at Mountain Hills in 1911 at the age of 80.

The grandson, meanwhile, had gone through school to about

Grade 8. In 1903, he went to Calgary where he was taught the art of printing and later he served part of his training as a printer in the composing room of the Calgary Herald. In the winter of 1905 he returned to the Blood reserve and worked for a time as interpreter at St. Paul's Anglican mission. Then for several years, until 1911, he worked on various ranches in the Fort Macleod district and gained a good understanding of the white man's way of life.

He was appointed chief scout and interpreter for the Royal North West Mounted Police at Fort Macleod, and served three years as a mail carrier for the Blood Indian Agency. During the First Great War he was employed on the Greater Production Effort to put large areas of the Blood reserve into crop production and thus help the war effort. In 1918 he was appointed assistant stockman for the reserve and one year later to the post of head stockman.



Senator and Mrs. Gladstone in full Indian ceremonial regalia. Senator Gladstone is quite happy to don the colourful dress to attract attention to his 165,000 fellow tribesmen rather than to himself. He has gained the reputation of being a good and wise man among the Indians.

Senator Gladstone started his own ranch five miles north of Cardston in 1920, and has since built it into one of the finest on the reserve. At the present time, he and his two sons, Fred and Horace, run about 500 head of commercial beef cattle and have about 800 acres of land under cultivation.

During his years as a rancher, Senator Gladstone has always tried to operate independently of the Indian agent as much as possible. He was the first Indian on the reserve to "bup" a tractor and was always ready to experiment. In 1911 he married the former Janie Healy, daughter of Joe Healy, noted Blood Indian whose parents were killed in an Indian battle in 1869. Joe Healy was raised by white fur traders and he became the first Blood to speak the English language fluently.

Senator and Mrs. Gladstone have six children, all of whom have shown the results of excellent upbringing. Fred is primarily a rancher, but captured the top honors for calf roping on the Canadian rodeo circuits one year. Horace is now the Assistant Indian Agent at Hay Lakes in the isolated N.W. of Alberta. Two of his daughters are graduate nurses.

The family home on the rolling and wind-swept reserve is a surprisingly revealing place. It compares with many of the better homes in Lethbridge, and is equipped with every possible electrical appliance, including a fuel-oil furnace, electric range—right down to a television set. It was the first home to be electrified on the reserve and how generous use is made of electricity is reflected in the monthly \$20 electric light bill.

A Christian, the new senator served as a warden for many years at the Anglican mission on the reserve. All the while, however, his one main objective has been to serve his fellow tribesmen. Ever since he left school, he has spent a large portion of his time trying to advance the position of his tribe, and was instrumental in having surplus Blood Indian reserve land leased to white farmers for agricultural purposes about 12 years ago. This leasing proposition has vastly improved the economic position of everyone of the 2,500-member band. He was national president of the Indian Association of Alberta from 1948 to 1954, and it was during these years that he spent a major portion of his time presenting the views of his people in Ottawa.

As a result of his strenuous efforts on behalf of his own band and Indians across the country, Senator Gladstone is highly respected and for decades countless numbers of Indians have sought his advice. He has gained the reputation of being a good man and a wise man among the Indians.



At home in the saddle, Senator Gladstone for a time was the chief scout and interpreter for the Royal North West Mounted Police, and later served three years as a mail carrier for the Blood Indian Agency.

His white friends admire him for his wisdom, honesty and integrity and they respect him as one of South Alberta's most progressive grain farmers and commercial beef cattle ranchers. His wife, too, is highly respected among the Indians and the whites. Senator and Mrs. Gladstone were among the first to recognize the need for as much education as possible for Indians if the tribesmen were going to progress.

Senator Gladstone does not intend to set the world — or even a small portion of it — on fire with a lot of ideas and talk when

he takes his place in the Senate.

"I have always tried to do the best I could for the Indians," he explains. "Now I will have greater opportunities and greater responsibilities. In the Senate I will listen to the discussion and suggestions. I'll talk only when I have something worth while or significant to say. I will endeavor to answer to the best of my ability. I'll learn a lot more as I go along. I will never be too old to learn."

He has accepted the high honor with humility, but enthusiastically.



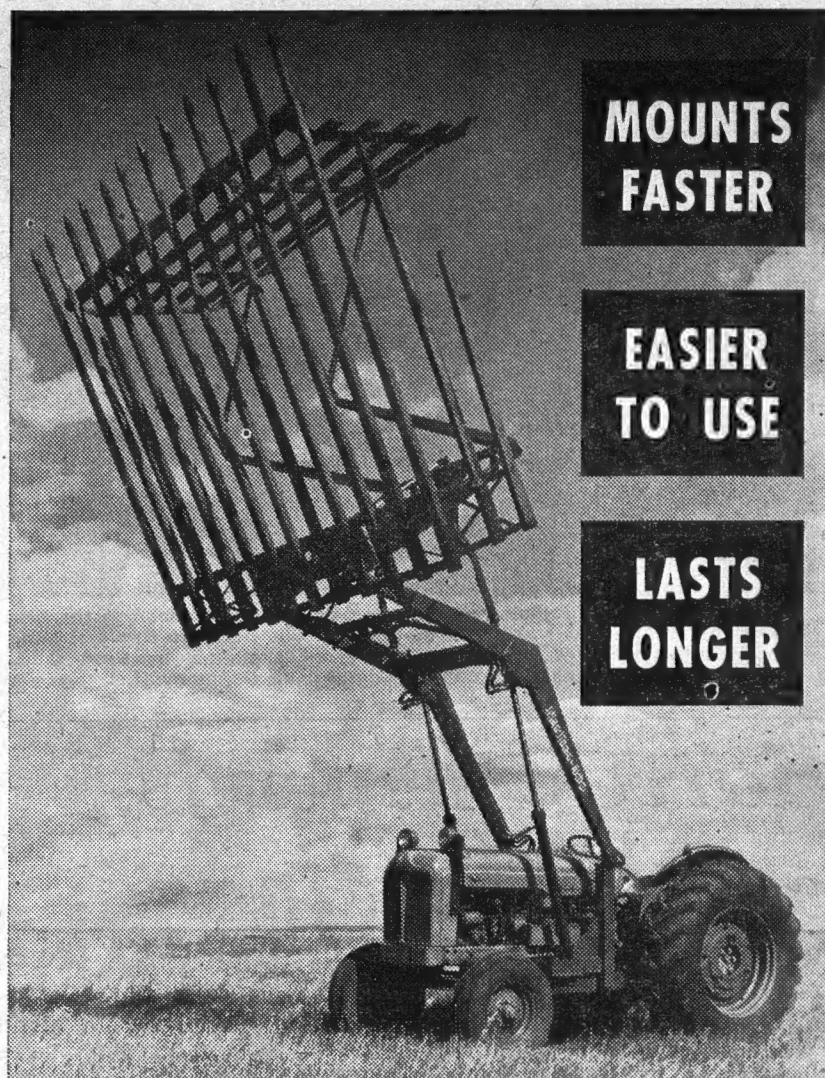
A top-notch and progressive rancher, Senator Gladstone was the first on his reserve to electrify his farmstead. His home and spread is one of the showplaces of the district.

World disease exchange

A WORLD Livestock Disease Reporting Service has been established by the Food and Agriculture Organization, at Rome. Its basis is a reporting form which asks of F.A.O. and O.I.E. member governments and their veterinary services detailed information on infectious diseases of importance in livestock industries.

Mexican drought

NOT only is the U.S. cattle shortage helping the Canadian cattle man to market his stock, but the effect of last year's drought in northern Mexico will be felt for some time. It was the worst, in some areas, in 30 years and cattle numbers have dropped by about one-third. Thousands of animals died from lack of water and feed.



**MOUNTS
FASTER**

**EASIER
TO USE**

**LASTS
LONGER**

New clean design of New IDEA 500 Series Loaders gives operator clear, unobstructed vision. No moving parts above or around tractor seat. Easy to step on or off tractor.

NEW IDEA 500 Series Loaders with Push-Off Stacker

These rugged new loaders can lift as much as 2500 pounds to full height with up to 40% extra breakaway power. Push-off stacker permits low cost hay stacking and handling.

AND NEW IDEA LOADERS:

Mount Faster. You can do it yourself in 15 minutes. Only six spring-clip pins and one cotter pin to fasten. One frame fits both standard and tricycle tractors. No need to change rear tractor wheel spacing.

Are Easier to Use. Short front wheel overhang permits better rear wheel traction. "Tailor-made" trip lever is at your fingertips no matter what your make of tractor. Clean design gives better vision. Easy to step on and off tractor. Most installations permit the use of double-acting cylinders that give down pres-

sure as well as lifting power.

Last Longer. Micro-honed cylinder finishes insure longer seal life and minimum oil by-pass. Continuous seam welding strengthens frame, and welded plates reinforce all pivot points.

Fits most makes and models of tractors. SEE the New Idea 500 Series Loaders at your NEW IDEA dealer's now.

And remember, there is also a full line of NEW IDEA — Horn loaders with 10 attachments. Write for complete facts in the new loader folders.

NEW IDEA FARM EQUIPMENT CO. DIVISION **Arco** DISTRIBUTING CORP.
Coldwater, Ohio, U.S.A.

Clip this coupon today and mail to nearest distributor listed below

Please send complete information on NEW IDEA loaders.

☐ No. 500 Series NEW IDEA Loaders ☐ NEW IDEA-Horn Loaders
☐ Manure Spreader Booklet

Name _____

Address _____

Town _____ Province _____

MANITOBA
Allied Farm Equipment Co. Ltd.
Sutherland Ave. at King
Winnipeg, Man.

SASKATCHEWAN
Grain Belt Farm Equip., Ltd.
1346 Halifax St.
Regina, Sask.

ALBERTA & B. C.
Northwest Farm Equip. Ltd.
Cor. 7th Ave. and 6th St. E.
Calgary, Alberta



Only by proper adjustment and operation of equipment can the best results be obtained . . . and it is the farmer who must do this job. The proper adjustments of tillage machinery are explained by Prof. O. L. Symes (centre), of the Agricultural Engineering Department, University of Saskatchewan.

Harvest depends on the seeding

by C. P. Lawrence

AS you sow, so shall you reap—an old theme from an old, old textbook, but most applicable today as far as the western farmer is concerned.

The big worry of the farmer these days is what to do with a bountiful harvest. And strangely, the amount of worry he will enjoy in the fall may well depend on how efficiently he did his sowing in the spring.

Seeding is probably the most important operation on the farm today.

This, at any rate, was the view expressed by the panel of agricultural experts pictured on these pages, gathered for the 37th annual Saskatchewan Field Husbandry Convention at the University of Saskatchewan.

The panel was made up by members of the staff of the Dominion Experimental Farms Service, with H. Leggett, Regina, as chairman, and E. V. McCurdy, Indian Head; A. Wenhardt, Swift Current; W. K. Dawley, Melfort, and H. Ukrainetz, Scott.

Mr. Leggett pointed out that the best seed, ample fertility, and expensive equipment will not produce a good yield unless good practices are followed.

Handling Stubble

The general use of combines in harvesting has increased the problem of handling stubble, Mr. McCurdy stated. He added that the first job on stubble land is to have all straw uniformly spread. A heavy straw covering should not interfere with yields as long as the seed is properly placed in the soil. Tests at Lethbridge, Alberta, have shown that there has been no reduction in yields even when there was up to 2.25 tons of straw per acre. Fields rarely have more straw, but

where there is more, a slight drop in yield can be overcome by using fertilizers.

The result in seeding on heavy stubble, unless fertilizers are used, is that the crop will lack nitrogen, turn yellow, and yields will be reduced. Experiments at Indian Head have shown the value of fertilizer. One hundred pounds of 16-20-0 per acre gave a yield increase of 6.1 bushels, 150 pounds of 33.5-0-0 produced 5.8 extra bushels; and a 10.0-bushel increase was obtained where 150 pounds of 33.5-0-0 was combined with 50 pounds of 0-43-0. Anhydrous ammonia has produced excellent results in recent tests.

Seed Drills

No one type of seed drill is the best for all conditions of soil type, moisture, straw covering, and topography as found in Saskatchewan, Mr. Wenhardt reported. The machine must accurately measure the seed, open a seed furrow to the set depth, deposit the seed in the soil and cover it. Proper seeding practices are necessary to get good germination, and emergence, to minimize frost hazards, and to avoid soil erosion. From this it is evident that seeding is possibly the most critical operation on the farm. Data from seven years at the Swift Current Experimental Farm and five years at the Illustration Stations in south-western Saskatchewan showed that the double disk seed drill was the most satisfactory for seeding.

Packing and Packers

Packing and packers were discussed by Mr. Mohlberg, who stated that packing is generally useful and will give increased yields, particularly on the lighter

soils. Packing on stubble land is more important than on fallow, as it will help reduce the drying of the soil, which is especially important for stubble land. The best type of packer has V-shaped units that pack the sub-surface but do not break down the surface soil.

Mr. Dawley pointed out that at Melfort in 1956 a straw chopper was used when harvesting a 46-bushel crop. The field was subsequently worked with a duck-foot cultivator and it presented no tillage problem. Had this heavy straw covering been burned it would have exposed the soil to severe wind and water erosion and would have destroyed valuable organic matter. Where burning of stubble is done fairly regularly a reduction of fertility occurs, and the soil becomes harder to work, which in turn increases the cost of farming as it requires more power—and at the same time poorer crops are produced. It is very important to preserve the straw and to keep it anchored at the surface, Mr. Dawley stressed.

Depth of Seeding

In light soils it may be necessary to seed deeper than on heavy as the heavy soils usually have better moisture close to the surface. Where the soil is loose and open the seed should be planted deeper than where the soil is firm.

The depth of seeding is closely related to size of the seed. The reason is that the only food a young plant gets until it grows leaves is that stored in the seed. Small seeded grasses and legumes must be sown shallowly, less than one inch deep; flax and rape not deeper than two inches; and wheat and coarse grain not more than three inches deep.

Soil should not normally be worked deeper than the intended depth of seeding, Mr. Ukrainetz stated. Early spring tilling, followed by a delay of 10 days, tilled again, and then seeded has given good weed control and increased

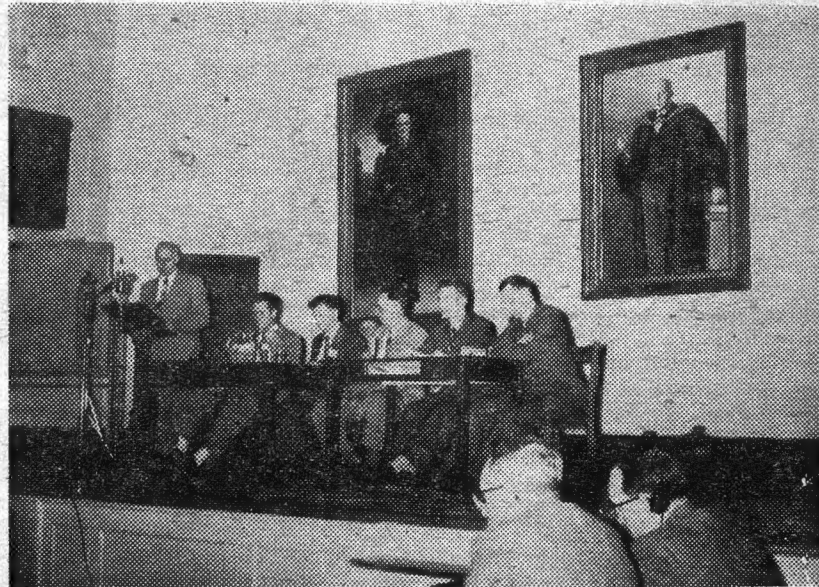
yields. Excellent control of wild buckwheat was obtained with this pre-seeding tillage and delayed seeding on summerfallow at Scott in 1956. A reduction from 50 plants per square foot to 18 was obtained, and the wheat yield jumped from 13.8 bushels to 23.4 bushels per acre. Oat yields rose from 31.0 bushels to 46 bushels. This procedure has been especially effective in the drier seasons, particularly when soil moisture reserves at seeding time were fairly high.

The early tillage and delayed seeding, plus fertilizer, as observed at Scott, resulted in earlier and more uniform germination of the crop. The growth was noticeably more vigorous, had better color, height, and leafy growth. Also the maturing period was one week shorter, and the ripening more uniform.

Moisture Conditions

One reason for low yields after breaking grass sod is that the moisture reserve has been reduced if a hay crop was not cut until late July. Such a field should be fallowed throughout the next summer. In preparing grass or legume land it is essential that all plants be killed. This may require three or four operations with a disk type of implement. Moisture conditions at the time of breaking are very important in the selection of the implement. At Indian Head, which is on the edge of the open prairie area, the plow has given the most consistent good results. On the open plains, where it is drier, the disk, the Noble blade, and the heavy-duty cultivator have been used satisfactorily.

After land has been in grass or grass-legume mixtures, the use of nitrogen and phosphorous fertilizers are very desirable. The present recommendation at Indian Head is the use of 75 to 100 pounds of 16-20-0, or 75 pounds of 27-14-0. These have given a big increase in yield. Oats has been the best crop to seed following breaking.



Discussing present-day seeding practices, a panel of agriculturists took part in the 37th annual convention of the Saskatchewan Field Husbandry Association, which was part of the Farm and Home Week at the University of Saskatchewan. Behind the panel Mr. Angus MacKay, the first Superintendent of the Indian Head Experimental Farm from 1887 to 1913, and the Hon. W. R. Motherwell, Minister of Agriculture for Saskatchewan, 1905 to 1918, and for the Dominion of Canada, 1921 to 1930, from their portraits, overlook proceedings.

" Feeder Day " is June 7th

FARMERS will again have the opportunity of an enjoyable and instructive day when the Department of Animal Science at the University of Alberta holds its annual Feeders' Day.

The guest speaker will be Dr. A. A. Dowell, of the College of Agriculture, University of Minnesota. Dr. Dowell, when head of the Department of Animal Husbandry, at the U. of A., from 1917 to 1922, organized the first Feeders' Day. His talk will be part of the activities celebrating the Fiftieth Anniversary of the beginning of the University of Alberta.

The program, Saturday, June 7th, will commence at 10 a.m., at the University Livestock farm, and will conclude around 5 p.m. A report for those unable to attend will be available, on request, after June 7th.

Topics and experiments to be discussed in detail by members of the staff are listed below, and it is felt that much valuable information will be made available to farmers interested in the various subjects.

1. Production records for sheep.

2. Self-feeding pellet rations to lambs.

3. Effects of barn temperature and ventilation on butterfat test.

4. Calf weaning weight as a permanent measure of a beef cow's productivity.

5. Finishing cattle in relation to protein, stilbestrol, antibiotic supplements and hormone implants.

6. Trolene for feed-lot cattle.

7. Inside vs. outside raising of pigs.

8. Antibiotic feed supplements and other additives in swine rations.

9. Rapeseed oilmeal as a protein supplement for market pigs.

10. Energy-protein relationship in swine rations.

11. Restricted feed intake in market swine.

12. Swine cross-breeding results.

13. Veterinary question box.

More on Safflower

A GOOD commercial test on safflower was carried out last year for the first time, according to W. D. Hay, of the Lethbridge Experimental Farm.

About 15,000 acres were grown under contract with two American companies. Yields varied, depending on conditions under which they were grown, from 200 lbs. to 1,000 pounds per acre. An increased acreage in safflower is expected this year, and from the tests and experience obtained growers should have better yields.

Safflower is a late maturing crop, so is one not likely to be successful all across the prairies. Even Southern Alberta, which is probably one of the best areas for this crop, requires its whole season to mature it.

Elephant Brand Fertilizer MULTIPLIES PROFITS!



Let's check the balance sheet for 100 acres of wheat on an average Prairie farm:

Yield (20 bu. per acre average) 2,000 bu.

Return (2,000 bu. @ \$1.20 per bushel) \$2,400

Less the fixed production costs (\$16 per acre) \$1,600

NET PROFIT \$ 800

Now -- let's fertilize with Elephant Brand A.P. 11-48-0, applied at a rate of 50 lbs. per acre:

Yield (30 bu. per acre average) 3,000 bu.

Return (3,000 bu. @ \$1.20 per bushel) \$3,600

Less the fixed production costs (\$16 per acre) \$1,600

Less the cost of fertilizer (\$2.50 per acre) \$ 250

NET PROFIT \$1,750

EXTRA PROFIT FROM USING FERTILIZER - \$950 - almost 4 times the cost of the fertilizer.

Choose from this complete line of ELEPHANT BRAND HIGH ANALYSIS FERTILIZERS

AMMONIUM PHOSPHATE	11-48-0	AMMONIUM SULPHATE	21-0-0
AMMONIUM PHOSPHATE-SULPHATE	16-20-0	NITRAPRILLS (Ammonium Nitrate)	33.5-0-0
AMMONIUM NITRATE-PHOSPHATE	23-23-0	COMPLETE FERTILIZER	10-32-10
AMMONIUM NITRATE-PHOSPHATE	27-14-0	ANHYDROUS AMMONIA (NH ₃)	82-0-0

Elephant Brand *high analysis* FERTILIZERS

manufactured by **COMINCO**

THE CONSOLIDATED MINING & SMELTING COMPANY OF CANADA LIMITED

Sales Offices:

CALGARY • SASKATOON • WINNIPEG • TORONTO • MONTREAL • VANCOUVER

57182-P

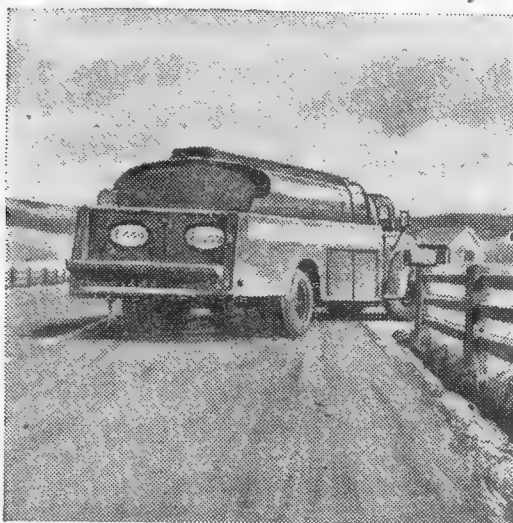
GET MORE FROM YOUR LAND WITH ELEPHANT BRAND



**products
you
trust...**

Increase the life of your machines... improve performance... reduce operating costs with dependable field-proven Imperial Esso Products—Esso Tractor Fuels, Marvelube Motor and Gear Oils, Esso M.P. Grease.

**service
you'll
like...**



Let us help keep you up-to-date with latest lubrication information. We're equipped, too, to give prompt delivery of all your farm petroleum needs.



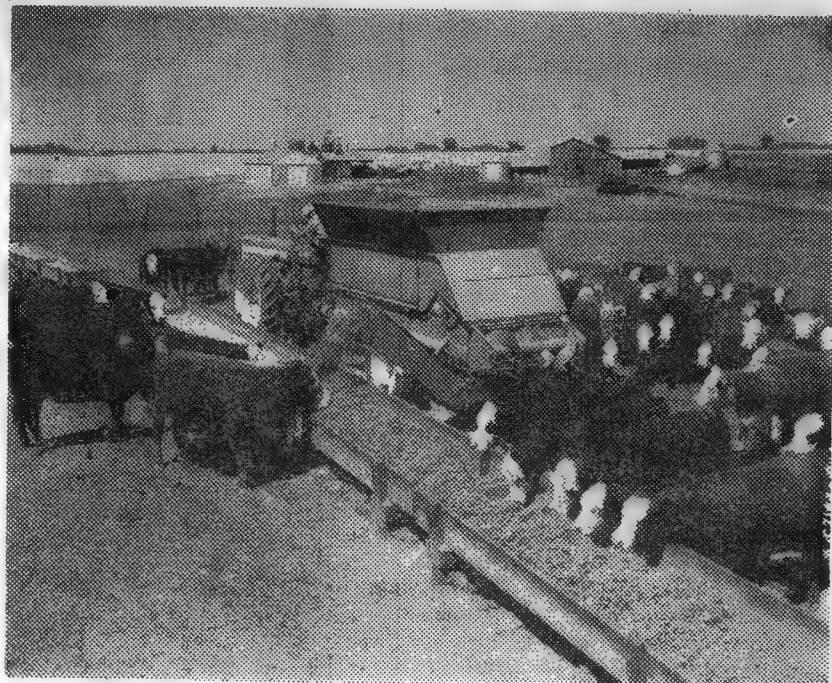
We Imperial Esso Agents are ready to serve you with information and products that are the result of Imperial's 77 years' experience in the farm field.

**ALWAYS
LOOK TO
IMPERIAL
FOR THE
BEST**



FREE! Esso Tractor Minder

—helps you keep track of operating hours—reminds you automatically of lubrication needs—get yours from the Imperial Esso Agent who displays this sign.



Modern methods of animal nutrition would baffle the early residents of the west. Nowadays, cattle may be born, weaned, fattened and slaughtered without the benefits of the open range to graze. A simple knowledge of salt, lime, bone meal and iodine are hardly enough in today's factory-feeding methods.

Nutrition yields its secrets

by Grant MacEwan

AT a spectacular pace farm animals are yielding their long-held secrets about nutrition. Without considerable reading and study, the stockman or student who thought he knew all about it in 1928 or 1938 could be quite out of date in 1958.

It may appear as misfortune that the subject has lost its one-time simplicity. The fact is that the newer knowledge of minerals, vitamins, antibiotics, hormone-like additives and so on, makes the study of animal nutrition complicated as well as fascinating and important.

Forty-six years ago, according to the best text-book information of that period, a ration providing specified amounts of protein, bone-building minerals water and energy-yielding carbohydrates and fats was considered sufficient for perfect animal performance. But from that point our scientific detectives began finding new clues and welding a long and spectacular chain of new evidence concerning nutritional needs of farm livestock.

The new information about the need for certain mineral supplements in barnyard rationing was relatively easy to accept. Under specified circumstances normal bone formation called for more calcium or phosphorus than common feeds furnished; suckling pigs denied access to soil or dirt sods needed extra iron if losses from anaemia were to be avoided; additional traces of iodine were needed in maternal rations as a safeguard against hairlessness in modern pigs and goitre in lambs and

calves; cobalt deficiency was demonstrated in some sections of the country; and the importance of common salt as shown by animal appetites was never questioned.

Salt, lime, bone meal and iodine were names and substances of which most people had some knowledge and it was not difficult to impress livestock feeders with the role of minerals and the place of mineral supplements. It wasn't as easy in the case of vitamins, however, those more mysterious substances existing in infinitesimal amounts and completely unnoticed for so long.

Vitamin A, without which retarded growth, eye disorder and reduced resistance to respiratory infections resulted, was identified in 1913. Since then its importance in the rations of farm animals has never been in doubt and loss of feeding efficiency due to deficiency may be more widespread, even today, than most people realize. Anyway, there followed a long succession of vitamin discoveries—B, C, D, E, G, K, and others. Vitamin C was the anti-scurvy factor; vitamin D the sunshine factor needed for proper utilization of the bone-making minerals; and then, what had been called vitamin B was found to be a whole family of closely associated vitamins, including thiamine, riboflavin, niacin and others.

Students found it difficult to keep abreast with the new names and for some years there was a tendency to regard the talk about vitamins as some-

thing for the theorists but not the practical feeders. Gradually, however, the elusive vitamins overcame the popular aversion to new terms.

But the research workers had some other surprises. The most important nutritional discoveries of the decade were in connection with the so-called test-tube feed additives: the antibiotics and stilbestrol.

The antibiotics suggest penicillin, aureomycin, terramycin and others of the so-called "wonder drugs." The discovery of their value in nutrition has some of the qualities of a bedtime story. During the Second World War penicillin saved thousands of lives and while its manufacturers by means of fermentation was being pressed, certain by-products appeared. The organisms making the antibiotic were found to be making vitamin B₁₂ at the same time. This was the anti-pernicious anaemia factor with importance in nutrition and the makers of the antibiotic set about to recover it.

In tests that followed, the vitamin B₁₂ from the antibiotic vats proved superior in feeding value to the synthetic vitamin. This was puzzling until it was demonstrated that some of the antibiotic material clinging to the recovered vitamin material was having a beneficial effect upon the test animals. That was in 1949 and the discovery marked a landmark in the science of animal feeding.

The best results from the inclusion of antibiotics in feeds came from pigs and poultry. The substance proved to be growth boosters, feed savers and aids in control of disease. Pig growers found that when aureomycin was added to the feed — 100 grams per ton of feed for pigs up to 35 pounds in weight and 50 grams per ton of feed for pigs between 35 and 75 pounds — the rather commonplace losses from deaths and the occurrence of runts could be cut down.

The younger pigs, being the most susceptible to disorders, showed the biggest benefits from antibiotics and there was doubt about the wisdom of continuing the use right to the time of marketing the animals. Moreover, there were those workers who believed that the feeding of this substance until market time led to deterioration in carcass quality because of excessive fat. But when the many experiments were averaged, the use of antibiotics in pig rations showed a 15 per cent benefit in rate of gain and five per cent advantage in feed economy.

The reason for the better use of feed when something like aureomycin is added to the rations of pigs and poultry is not entirely clear; perhaps the control of unfriendly bacterial organisms holds part of the answer and possibly there is some gain from the reduced rate at which feed passes through the digestive tract.

In the case of cattle and sheep

rations, the practical benefit of adding an antibiotic has not been as clear. There was fear of interfering with the normal and friendly bacteria in the ruminant stomach for one thing. Views on that point have changed a good deal but cattle and sheep were to gain special help from the still newer hormone-like feed additive — something with a shockingly long name considerably reduced to "stilbestrol."

Hormones are substances secreted by body glands and sometimes very powerful in their physiological effects. Stilbestrol is the equivalent of estrogene, which, as a secretion on the female sex glands, has been prescribed to induce heat periods in cows and mares and sometimes as a treatment for retained afterbirth.

It will be appreciated, therefore, that such a product must be used with caution, especially where breeding animals are concerned. United States workers, for example, found that where young boars were following stilbestrol-fed cattle in a feedlot, their testicles were only a fraction of normal weight and size.

There are those classes of farm animals to which stilbestrol-fortified supplements should not be fed; but with feedlot cattle the results of use have been rather consistently favorable. Satisfied that with intelligent use, stilbestrol could benefit cattle feeders without leaving any dangerous residue in the meat, the federal government in March, 1956, authorized its sale under specified circumstances.

Because very little of the material is required in a ton of beef cattle feed and because of the difficulty in obtaining a uniform mixture, government regulations limited the sale to authorized pharmaceutical firms and then only in the form of premix for inclusion in feeds controlled under the Feeding Stuffs Act.

At the time stilbestrol received government clearance, cattle feeders were cautioned to keep it away from breeding stock, very young animals and milk cows, also to discontinue its use in the rations of fattening cattle at least 24 hours before the animals were sent to market or slaughter.

Time has shown that stilbestrol-fed steers can yield carcasses of good quality, often possessing more lean and less fat than experimental controls.

Finally, having pointed to the need for care in using this synthetic estrogen in rations, its value in increasing rate of gain and feed efficiency must be recognized. It was in 1954 that the substance made nutrition news. How or why it produced the beneficial responses in steer and fattening lamb rations was not understood but the experimental results were none-the-less convincing.

An allowance of 10 milligrams per head per day to feedlot steers has shown a 15 per cent


increase in rate of gain and an average increase of close to 10 per cent in feed efficiency. Cattle feeders were quick to recognize what this could mean to them and in the United States, according to estimates, 75 per cent of feedlot cattle are now getting stilbestrol. In Canada where use was legalized later than in the neighboring nation, acceptance is not as general, but more feeders are enquiring about it and buying the stilbestrol-fortified protein supplements which feed dealers offer.

Experimental work has suggested implants of stilbestrol pellets under the skins of feeder animals as a convenient method of administration. Placed under the skin of a steer's ear the effects have lasted for 150 or 200 days but the technique has not become popular.

Now, reports from the University of Minnesota tell about feeding both stilbestrol and terramycin to fattening steers and getting faster and cheaper gains than when either product was fed alone. Probably more will be heard about this.


These new wrinkles can mean better returns for producers, but they are not to be seen as substitutes for otherwise sound nutritional principles in feeding. Nothing will take the place of protein and there are no substitutes for the essential mineral and vitamins. Products like stilbestrol and aureomycin are not essential but they may be effective and valuable as boosters.

The Farm and Ranch Review is one of the best farm journals. It has real advertising appeal.



HESSTON Straw Choppers

are STILL THE LEADER!

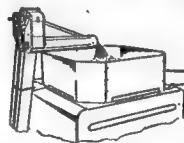


This chopper is one of the finest combine attachments manufactured today. Will chop and shred heaviest straw in small pieces! Actually adds humus content to

soil. WILL NOT CLOG! Used by more farmers than any other chopper. Will often eliminate one plowing! See it at your nearest Hesston Dealer!

BUY HESSTON COMBINE ATTACHMENTS—FINEST MADE!

HESSTON TANK LOADER AND EXTENSION UNITS

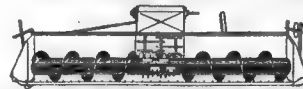


Loads tank to full capacity... extension adds 14 bushels to tank capacity. Auger, driven by V-belt, mounted on sealed bearings. Fits most combines.



HESSTON QUICK CONCAVE ADJUSTMENT

Precision adjustment allows quick lowering and raising of cylinder or concave... both sides at same time... without stopping. Saves time and grain. Fits most combines.



HESSTON RETRACTABLE FINGER AUGER

Prevents bunching of and efficiency. Silent grain and slugging. In operation. Fits IH, M-H, creases combine speed and CO-OP combines.



HESSTON CYLINDER V-BARS

Cut more acres... save more grain! Non-slugging for easier separation, smoother operation, more even feeding. Will fit most combines.



Send this coupon to HESSTON MANUFACTURING CO., INC.
500 King Street, Hesston, Kansas

Send information on

- ☐ FRICTION THROTTLE FOR IH, M and M
- ☐ QUICK CONCAVE ADJUSTMENTS
- ☐ M-H BEATER SPROCKET
- ☐ TANK LOADER AND EXTENSIONS
- ☐ SELF-PROPELLED SWATHER
- ☐ ROW-CROP SAVER
- ☐ STRAW CHOPPER
- ☐ RETRACTABLE FINGER AUGER
- ☐ CUTTERBAR EXTENSION
- ☐ STRAW SPREADER
- ☐ V-BARS

Distributed by:

Northwest Farm Equipment Ltd.,
7th Ave. & 6th St. East, Calgary, Alberta, Canada
Grain Belt Farm Equipment Ltd., 1348 Halifax Street
Regina, Saskatchewan, Canada

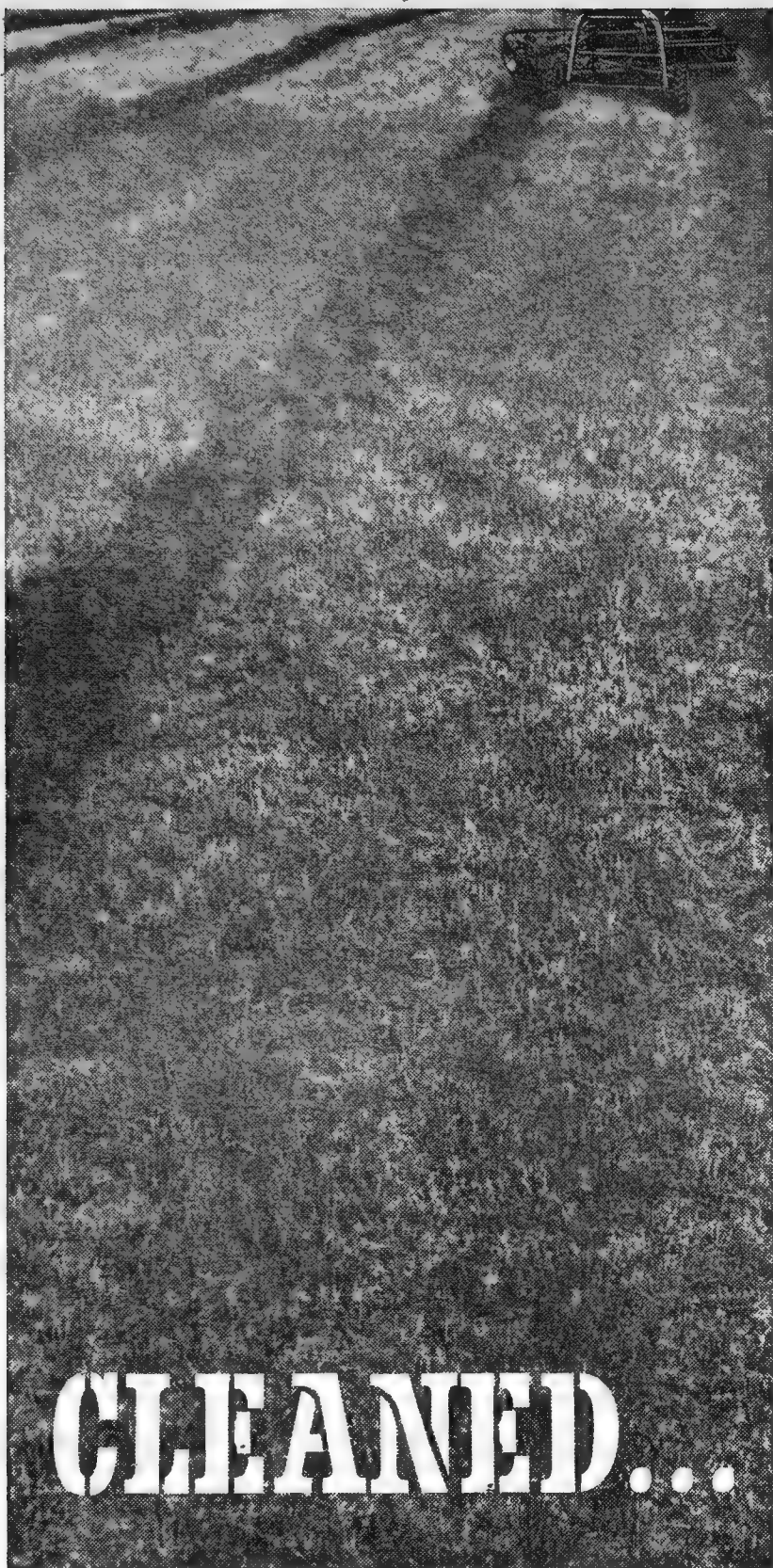
NAME _____

ADDRESS _____

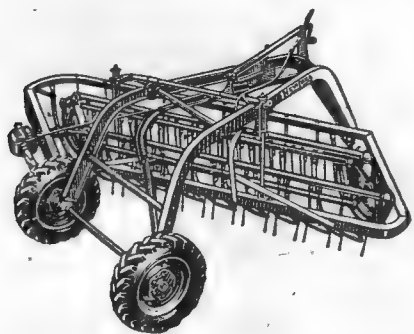
CITY _____

STATE _____

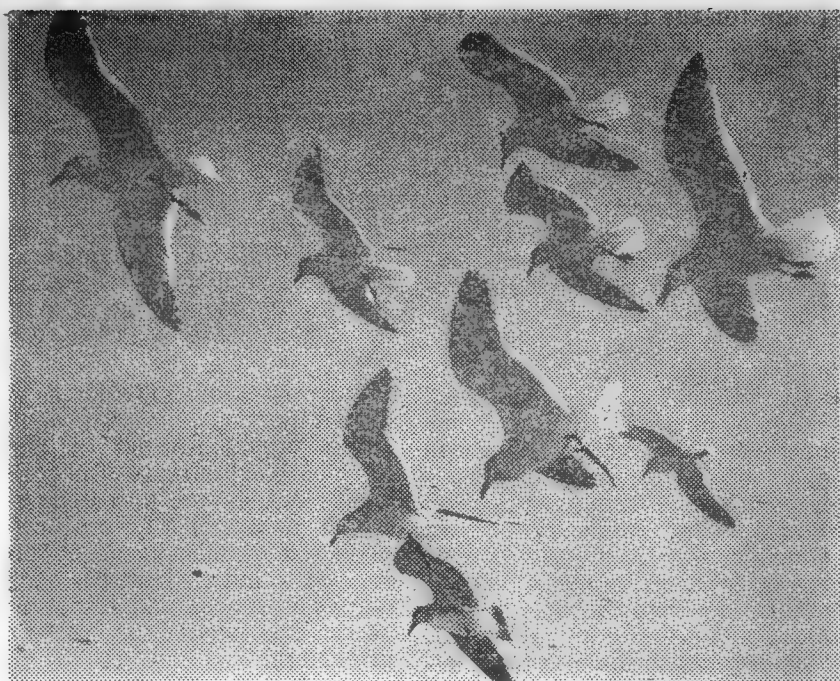
I OWN A _____ COMBINE.



...BY THE RUGGED RAKE*
WITH GENTLE ACTION



*NEW IDEA new pull-type parallel bar rake fits any tractor. Makes the fluffiest hay you ever saw. See your NEW IDEA dealer, or write for free literature. NEW IDEA Farm Equipment Co., Coldwater, Ohio, U.S.A.



Franklin's Gulls are only one of the more than three hundred species of birds found on the prairies, but they are the finest bird friend the farmer has.

Our best birds

by Kerry Wood

"SAY, I've worked out the funniest stunt you ever saw," the farmer greeted me. "You know how gulls flock around ploughs this time of year? Well, the other morning I cut two small chunks of raw meat, then I tied a piece of strong black fishing string to one chunk, paid out about four feet of line, and tied the other chunk to the other end of the cord. Next I got on my tractor and started ploughing. When the gulls came and darted down to the fresh turned furrows, I tossed back my chunks of meat. They'd no sooner hit the ground when two different gulls grabbed them.

"Well, sir! What a tugging and yawping and rearing back and see-sawing around! I had to stop my tractor, I was laughing so hard. One gull was stronger; he kept yanking the other guy off his feet. Then the big one panicked and started to fly, but the other acted as a ground anchor. Down flopped the big fellow in a nose-dive. More screaming, more tugging and straining, until at last the smaller gull coughed up the meat he'd swallowed. At once another gull grabbed it, then the tug-o-war began all over again. Funniest bird stunt I ever saw!"

No doubt the practical joke produced some very comical situations. A man who once worked at a sea-coast lumber mill told me a similar story concerning workers who ate their lunches on a pier, where gulls flocked around to plead for hand-outs. The men tied chop and steak bones together with string, then tossed the scraps into the air and watched two gulls stage a sky-tugging match. Probably very funny to watch, but —

What a callous reward for the hard work of the finest friend farmers have among all western birds.

Many farmers are completely indifferent to the worth of birds, to the meadowlarks who devour over 2,000 insect and weed seeds daily, or chickadees that keep plant-lice from destroying trees, or the potato-bug eating rose-breasted grossbeaks, or the mosquito hunting night-hawks. Consider the case of the small song sparrow, best known of our native sparrows. The late P. A. Taverner, employed as chief ornithologist for the Canadian Wildlife Service, once worked out careful figures regarding the good deeds of this species. Weed seeds make up 50% of the song sparrow's summer diet. Stomach analysis investigations over a period of time yielded the unimpressive average of one-quarter of an ounce of weed seeds devoured daily by each song sparrow. Multiply that small daily amount by nine months' time the bird spends in Canada, and the total comes to four and a quarter pounds of weed seeds devoured every summer — plus the same weight of harmful insects. Mr. Taverner estimated that in favorable localities, song sparrows numbered seventy-five birds per square mile. He multiplied this population by the arable acreage of southern Ontario where he conducted the survey, and discovered song sparrows in that one small part of Canada destroyed over eleven thousand tons of weed seeds every year.

That's the scientific truth about one species of small bird, but what about the large and always hungry Franklin's Gull of the west? Another government report contains these figures: in the stomach of one Franklin's Gull were found 82 beetles, 87 bugs, and 984 ants. During grasshopper season, a dead gull's stomach contained the remains of over 300 grass-

hoppers. While following the spring ploughs gulls find and devour wire worms, cutworms, billbugs, click-beetles, weevils, plus egg-sacks of grasshoppers and other harmful insects. Gulls are so fond of eating that they will take time out to cough up and discard partially digested contents of their stomachs, and then, empty again, they dart down to the furrows behind the ploughs and start feasting all over again!

For years I have preached the usefulness of these extremely beneficial birds. Some farmers are keen on draining marshes to get more hayland, but when draining means the destruction of gull nesting sites, naturalists find themselves opposed to farmers and trying to protect the farmers' own interests. If a marsh nesting site is lost, the gulls are forced to seek other sites far away — and thus the marsh-draining farmers may lose the beneficial insect-control work of gulls that do their best feasting on farms near their colonies.

When lecturing to school children I use an insect-per-mile illustration to get across the value of gulls. Often gulls fly parallel with a road, and we need only check our car's speedometer to learn that the birds' cruising speed is around 40 miles per hour. During the eighteen hours of daylight per day during spring and early summer, gulls are abroad constantly. Perhaps eight hours of the 18 are spent on the ground picking up food, while the remaining ten hours are spent at flying to and around feeding areas. Ten hours' flying, at 40 miles per hour, gives us a total of 400 miles the gulls fly daily in quest of food. And surely, during the eight hours spent on the ground, they find at least 400 items to let us count a harmful insect-per-mile as fuel consumption! Now multiply that 400 items per day by 180 days per year that gulls stay on western farm fields, and we get the impressive total of 72,000 insect items eaten by one gull during one summer. Carry it farther. Multiply 72,000 by the hundreds of thousands, perhaps millions, of beneficial gulls living near western grainfields every summer, and you'd have a terrific heap of creepy, crawly, and utterly destructive buglets eaten by the helpful gulls.

Franklin's Gulls are only one of the more than three hundred species of birds found on the prairie provinces as natives or migrants. All but a very few are birds that work hard, every single day, for the agricultural industry. Without them, we could not farm profitably. Yet one practical joker farmer thanked them by tying two chunks of meat together with fishing cord, then watched the painful tugging match that may have seriously injured and perhaps killed one of the two beneficial gulls.



Farm and Ranch Photo

Here's a smart signpost to mark the entrance to the BHR Royal Hereford Ranch on the outskirts of Calgary. Such signs as this will make your place stand out from its neighbors. Dress it up.

Don't overfeed layers

HALF of 2,820 chicks received at the Lethbridge Experimental Farm last year as baby chicks were raised on a restricted diet up to the time they were housed in the fall for laying purposes. The other half was full-fed.

The restricted birds on the average required 190 days to begin laying, but the full-fed birds were laying at an average of 176 days. But after three months the restricted group were producing at 82.6 per cent compared to 82.0 for the others and the size and quality of their eggs was significantly better than those of the full-fed group.

IN THE 1956 census Manitoba had 49,201 farms covering an area of 17,931,817 acres.



Farming Calls for Wise Decisions

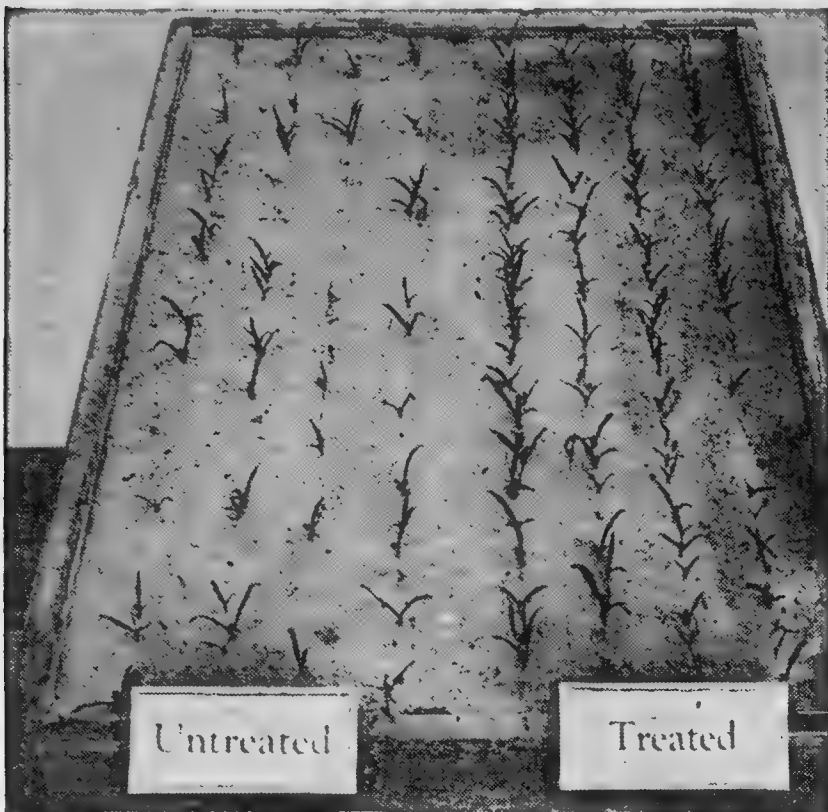
Every year, you've got to make decisions... some of them difficult. And making the *right* decision may mean the difference between a good year or a bad. That's why it's a good idea to talk things over occasionally with someone who understands your problems, and who can offer sound, impartial advice on matters of farm finance.

Your local Royal Bank Manager is the logical man to go to for counsel because he's had a wealth of practical experience in farm communities. Next time you're in the neighbourhood of the branch, drop in for a chat. Your "Royal" Manager will be glad to see you.

Thousands of farmers are enjoying the benefits of Farm Improvement Loans. Ask your friendly Royal Bank Manager for a copy of our free booklet which explains all about these long-term, low-interest loans.



THE ROYAL BANK OF CANADA



Plants grow better when seeds are tested. Only about 40 per cent of the spinach seeds at left side of test flat were able to produce plants, in comparison with 75 per cent of treated ones, right.

Treated seed means bigger crops

FARMERS have found that even the most expensive seed, once it is placed in the soil, is defenceless against seed-borne enemies. Unlike man, to whom most bacterial, virus or fungus infections are disagreeable, but not necessarily fatal, a plant once stricken with disease rarely recovers. Some plants can be attacked by as many as 30 different disorders.

For many years farmers found their best protection in careful selection of disease-resistant varieties of seed and in a system of planned crop rotation. Now, perfection by agricultural scientists of seed disinfectants has given them another weapon in their war on plant disease.

Seed disinfectants are widely used to protect seed grain from the attacks of organisms that cause root rot, smuts and seedling blights. Armed against such diseases, treated seed has a better chance of producing healthier stands and richer yields of wheat, rye, barley, oats and flax.

Other crops have benefited, too, from applications of seed disinfectants. Treatment of seed potatoes not only disinfects the surface of the tuber but also protects it from many disease attacks after planting.

In the United States and Canada extensive field tests using seed disinfectants on alfalfa have resulted in increased stands of hay, and also in larger, healthier plants with more vigorous root systems.

An Eastern Canadian seed dealer, located at Oakwood, Ont., found that treated alfalfa seed produced young seedlings with a better chance to develop into healthy plants. Now in addition to using seed disinfectant on alfalfa, they also use it in their long-term pasture mixtures and lawn seed.

Truck farmers and market gardeners have obtained increased yields from beans, peas and other vegetables by treating the seed before planting. Sugar beets, corn and even flower seeds and bulbs also respond successfully to seed treatment.

Many seed disinfectants are now available in a variety of forms and strengths: liquid, for use in ready-mix treaters; a standard dry formulation; and dustless powder which is dissolved in water and mixed with a special sticking agent to ensure complete coverage of the seed.

McCLELLAND'S
NEW Liquid Pig Wormer
"PYPZINE"
TO BE USED IN DRINKING WATER
ONE OUNCE TO EACH 50 POUNDS OF BODY WEIGHT

- EFFECTIVE
- EASY TO USE given in drinking water
- ONE TREATMENT
- NON TOXIC
- NO STARVING OR PURGING

Inquire from Your Local Dealer or Write Direct to

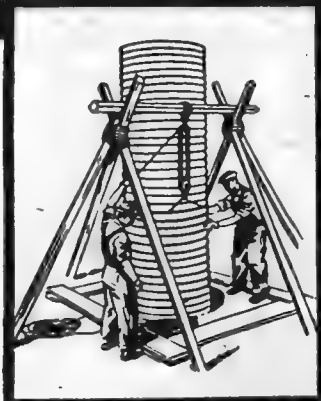
McCLELLAND VETERINARY SUPPLIES
611 - 8th Ave. East
Calgary, Alta.

WRITE FOR YOUR FREE CATALOGUE

16 Oz. - - - \$1.75
32 Oz. - - - \$3.00
80 Oz. - - - \$7.00
160 Oz. - - \$13.50

ORDER YOURS TODAY!

Protect your water supply with



There are many reasons why **WESTEEL WELL CURBING** is the most popular in the West:

WESTEEL GALVANIZED CORRUGATED **WELL CURBING**

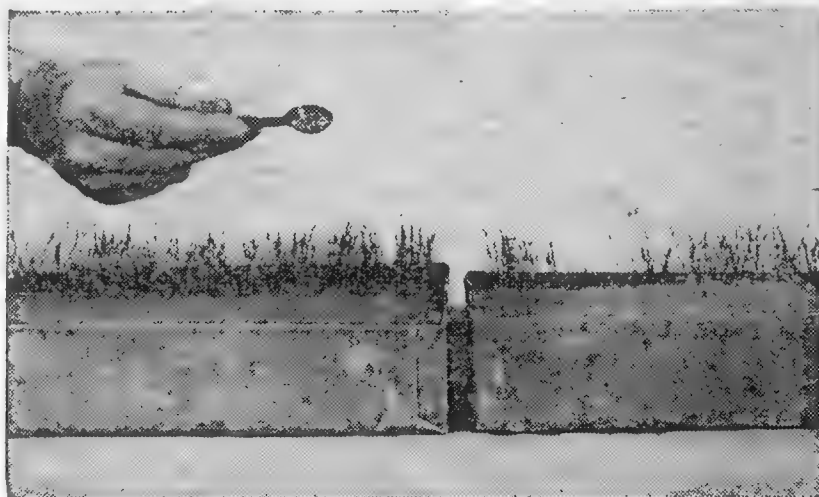
- Guards well against cave-in, vermin, seepage.
- Not affected by frost.
- Made from top quality, galvanized, copper-bearing steel.
- Available in diameters of 8" to 72", length as desired.
- Westeel's snug-fitting "slip-joint" makes assembly simple.
- Lengths quickly bolted together for easy installing.
- Low first cost—no maintenance cost.

An all-Canadian, Canada-wide organization

WESTEEL
PRODUCTS LIMITED

Ask your local dealer or write for full details and prices.

WINNIPEG • REGINA • SASKATOON • CALGARY • EDMONTON • VANCOUVER • TORONTO • MONTREAL



Lawn grass whose seeds are treated with small amount of seed disinfectant — in teaspoon above — have 46.5 per cent more blades, left, than the untreated seeds at right.



Field corn grows abundantly when the seeds are chemically treated (left), poorly when not treated.

Soil packers

IN areas subject to soil drifting, packing should be done only when the soil is moist. If discers are used for seeding, packers should be drawn immediately behind the discer.

Farm land disappearing

THE same thing that is worrying Ontario and Great Britain, the loss of top farm land, is happening in many other places. In the U.S. it is estimated that 1 1/4 million acres are being taken out of cultivation each year, for housing, shopping centers, airports, factories and highways. Connecticut, for instance, has lost more than one-third of its farming land. In another 10 years it is said the state will have no good commercial farm land left.

The ever-changing farm picture

NOT even farm products remain stable any more. Food manufacturers, in many cases, are telling the grower what to grow, and helping him to develop the desired product. For instance, tomato growers are told "the consumer demand is increasing for a redder tomato,

and government standards are requiring a more highly colored tomato juice." Cucumbers have been developed that are 95% resistant to the major diseases of the cucumber pickling crop. Demand in canned carrots shifting from the diced variety to the sliced type requires the growing of a slimmer carrot. Efforts are continually going forward to obtain greener beans, a shift from white corn to yellow corn and so on, all processes involving changes in types of seed, planting, cultural and harvesting practices. The day when the grower could just sow and reap, without any study, is gone.

Who's a liar?

FISHERMEN in Manitoba from now on will be able to prove they are telling the truth (if they are, and bring in the proof). The Manitoba department of mines and natural resources will present fishermen with a "Master Angler" lapel badge if he, or she, lands a "big one". To obtain a badge requires a fish of the following minimum weights: smallmouth bass, 4 pounds; pickerill (wall-eye), 8 pounds; northern pike, 15 pounds; brook or speckled trout, 4 pounds; lake trout, 20 pounds, and rainbow trout, 5

pounds. The fish can be caught anywhere in Manitoba (in fishable waters), and must be caught with rod and line.

Champion seed Club

THE Boissevain, Manitoba, 4-H Seed Club has won the Harrison Shield, for the best 4-H Seed Club in the province, for the third consecutive year. Their last marks totalled 907 out of a possible 1000.

Rabbits for polio-shots

THE Salk anti-polio vaccine has been produced only from the Kidney cells of Rhesus monkeys which has presented some difficulties. Thousands of the monkeys, for instance, had to be imported into Australia. Last year a delay in shipments caused a hold-up of several months in Australia's program of vaccination.

Scientists have for some time been working on methods of obtaining the vaccine from rabbit tissue, and according to Dr. P. Bazeley, of Australia, (an associate with Dr. Salk in the final stages of research in his anti-polio vaccine) only technical difficulties have now to be overcome

SPECIAL PURCHASE

Now is the time to overhaul and replace

TILLER DISCS

FITS Alloy One-Way Discs 22"

- Massey-Harris 509
- All John Deere wide-level discer
- IHC Discer & Ford

Genuine Ingersoll one-way discs to fit 1" shaft.
• Alloy Steel
• Heat Treated
• Splendid Value
Reg. Price \$14.80

NOW ONLY \$6.95

KINGSTRONG ALUMINUM

ROOFING & SIDING

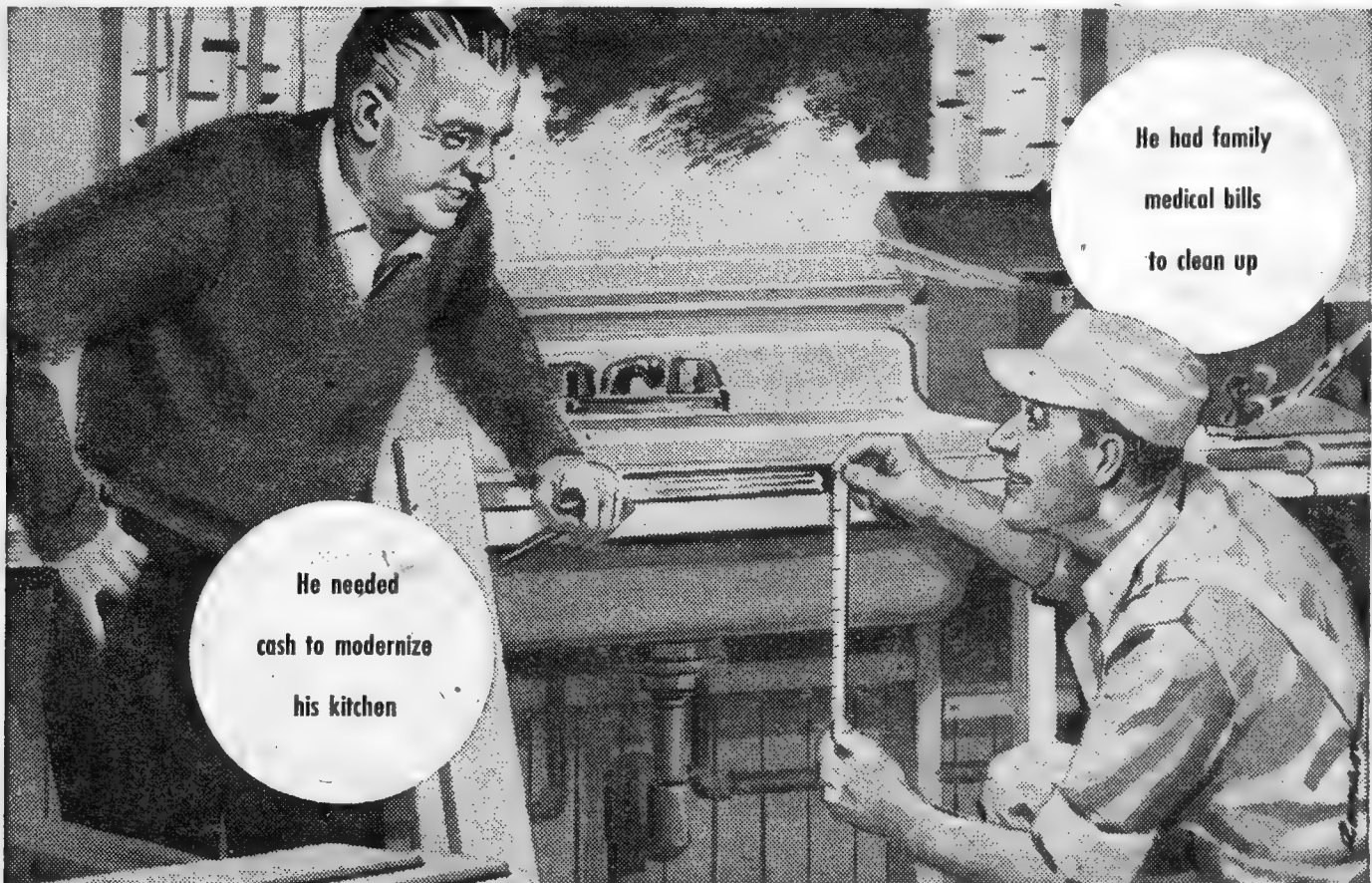
24-GAUGE — Ribbed or Corrugated Sheet Size	Price per Sheet
33 1/2" x 6'	\$2.44
33 1/2" x 7'	2.85
33 1/2" x 8'	3.26
33 1/2" x 9'	3.66
33 1/2" x 10'	4.07
33 1/2" x 11'	4.48
33 1/2" x 12'	4.88

33 1/2" width sheets cover 82"
24-GAUGE FLAT ALUMINUM (rolled in coils), 24" or 36" width.
Per 100 lbs. \$49.50

RIBTOR

MANUFACTURING & DISTRIBUTING CO. LTD.

605 - 607 - 2nd St. E., CALGARY, ALTA.
The Best Address in the West for Value



...so both are borrowing from a bank

Faced with unforeseen household expenses? Want to make some special major purchase? Need money for taxes—or to meet a family emergency? Personal loans to help people meet just such situations are being made by the chartered banks every day. You're not asking a favour when you visit a chartered bank to arrange a personal

loan. The manager welcomes opportunities to make loans, repayable out of earnings in convenient instalments.

And at a chartered bank, you can always count on privacy and courteous consideration, whether you are arranging a loan or using other valuable services the bank provides.

THE CHARTERED BANKS SERVING YOUR COMMUNITY



Alberta Government Photo

Using the strip cup to good purpose. Proper mastitis control has to be approached on a complete herd basis with examination of milk from every quarter.

Mastitis control is urgent

MASTITIS costs the dairyman more money than any other disease today. Mastitis can be controlled by a program of prevention and treatment.

The above are the conclusions arrived at by a gathering of American veterinarians and scientists sponsored by Jensen-Salsbery Laboratories, of Kansas City, in an effort to take a strong stand, backed by expert knowledge, against what has become a serious and costly dairy industry problem. The statements made in this article are from the findings of the convention.

Mastitis is a general term that refers to any inflammation of the milk glands, or udder, of the cow. It has been in existence since man began to breed cows to produce milk.

Mastitis can be either infectious or non-infectious. Infectious mastitis, accounting for most cases, is an inflammation caused by bacterial infection.

The several types of bacteria which can cause mastitis belong to what scientists call the "grand spectrum". This ranges from streptococci and staphylococci at one end, to the "grand negative" of filth and intestinal organisms on the other.

Infectious mastitis is conta-

gious and can easily spread through a whole herd. Its most common cause is unsanitary milking practices which breed and allow bacteria to enter the udder through the teat canals.

Non-infectious mastitis is an inflammation caused by injuring or bruising the udder. This type is not contagious and is usually caused from rough handling, kicks of other animals, etc.

Both infectious and non-infectious mastitis can occur in either acute or chronic forms.

Acute mastitis is shown by swelling and pain in the udder. The milk supply decreases and has an abnormal appearance and smell. Cows, unless treated, may become severely sick and die suddenly.

Chronic mastitis is characterized only by a decrease in the milk supply and minor changes in the milk. It carries no pain or swelling and can be detected only by veterinarian tests. This type of mastitis may go on with little change for years, but may become acute immediately.

The consensus of opinion among experts at the meeting was: "If we continue to expect the dairy farmer to control mastitis by indiscriminate use of antibiotics, we are going to create more problems than we solve."

It was agreed that farmers should stop being "do-it-yourself" vets who believe that continuous penicillin injections are the best way to treat the disease.

"Reliance on antibiotics to do the job has led to a false sense of security in the industry," one scientist stated, "and is causing the dairy farmer to overlook commonsense measures of herd management. If we continue," he added, "to breed cattle for udders that drag on the ground we must expect that filth-borne bacteria will infect the udder and cause mastitis."

"And," he said, "if dairymen continue to treat only cases obvious to the untrained eye, we are going to have trouble from hidden cases of mastitis."

All speakers at the convention agreed that observance of ordinary measures, such as clean floors, machines and barns can do much to curb the incidence of mastitis.

They emphasized that there is no cure-all for mastitis, but much can be done in its control. In this they proposed:

1. A return to sound herd management principles commonly followed before antibiotics, particularly penicillin, were hailed as "wonder-cures."

2. More efficient and safe use of existing antibiotic products, plus development of new bactericides which are **NOT USED BY INJECTIONS IN HUMANS** and do not create drug resistance.

3. Reliance on the nation's veterinarians to supervise mastitis control programs and to diagnose mastitis cases which cannot be detected by the farmer.

As one veterinarian speaker said: "Our job is to explain why the cow has mastitis and how antibiotics can be safely used. I believe most mastitis is man-made. A good herdsman can control mastitis with very little antibiotic. I have seen it done

repeatedly, and it is very gratifying to receive thanks from a client who has cleaned up a major mastitis problem by simple advice on his milking machines or other facilities.

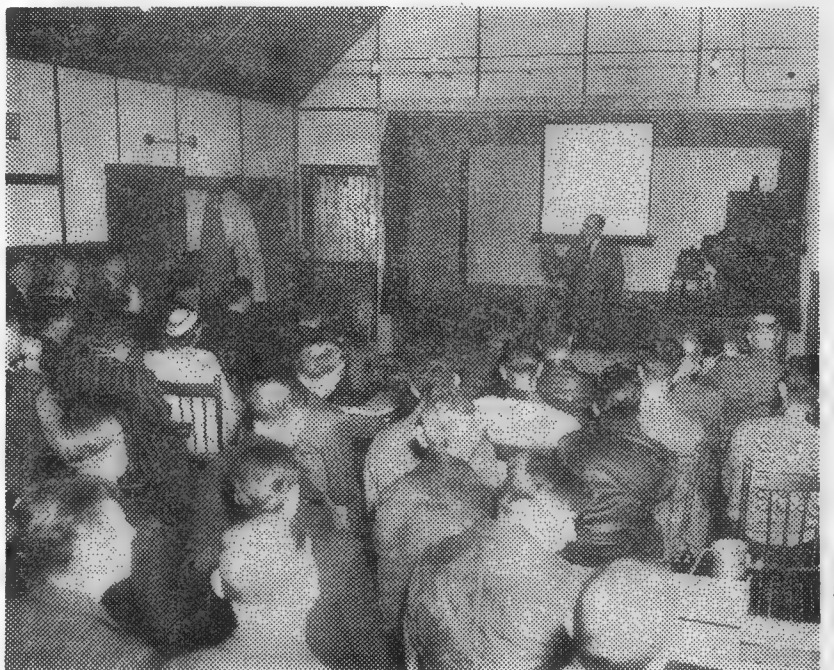
Most veterinarians feel that an educational program is of prime importance — now, with the emphasis on improved management and sanitation practices.

Another speaker said: "We veterinarians have taken the free ride on the high-power ads. of the antibiotics along with the dairymen, but I remark that the veterinarians are now organizing to do something about prevention."

The objections to indiscriminate use of antibiotics, penicillin in particular, are: types of bacteria which penicillin once destroyed develop a resistance to the drug so that a dose 5 times as strong as originally used may no longer be effective. Penicillin, or other antibiotics used for injections in humans should not be used on milk cows. In the treatment of mastitis these high doses of penicillin are leaving residues in the milk. The U.S. federal Food and Drug Administration has called attention to this fact and warned that these residues constitute adulteration, and may cause adverse reactions in persons highly sensitive to penicillin. These reactions may be directly sickening, even fatal, or indirectly serious through having immunized a person urgently requiring the drug.

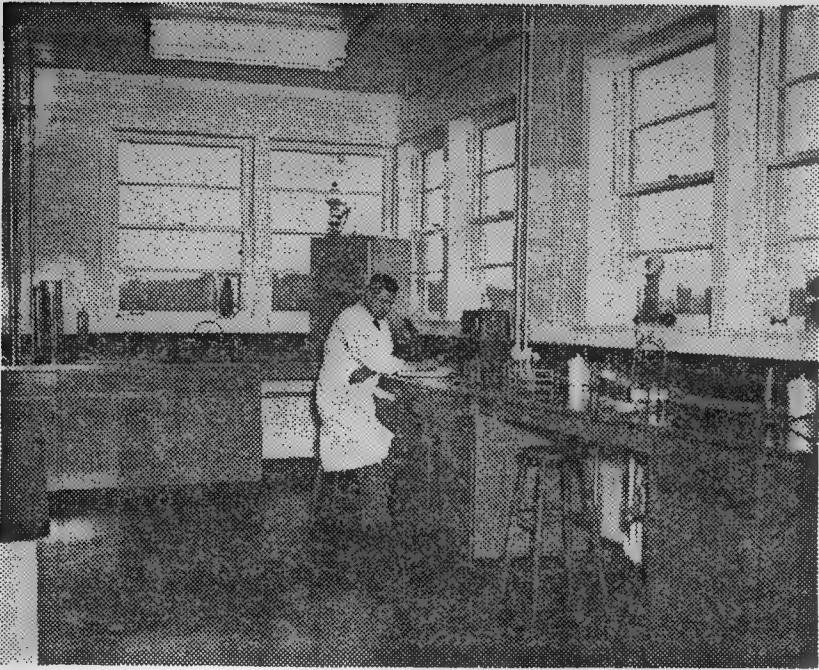
"The public health implications are serious enough," authorities say, "but on top of them common mastitis drugs are failing to control the disease. And still penicillin is available to milk producers over the counter in practically any farm supply store."

What the industry requires, according to the scientists, are improved products which will better control infections that have become resistant to present



Alberta Government Photo

Doctor E. E. Ballantyne, Alberta's Director of Veterinary Services, addressing a meeting of dairymen near Edmonton to discuss mastitis control. Although the Province provides a mastitis control service for farmers, not enough farmers take advantage of this service.



Alberta Government Photo

A veterinary pathologist making a laboratory examination of mastitis bacteria. Sensitivity tests may be run on milk samples to eliminate hit-or-miss methods of control. For one thing, it enables the right drug to be used against the particular bacteria involved.

antibiotics. And if these products are new antibiotics they should be ones not also for human use. As the speaker for one drug company put it: "So many drugs are being turned out today that it should not be a hardship on any drug company to separate and restrict one series for humans and one for animals."

To sum up briefly: Three factors are necessary for mastitis control in a given herd:

1. An understanding of the fundamental causes of mastitis, and its seriousness, by the dairyman.
2. Co-operation with his veterinarian to obtain proper diagnosis and treatment.
3. Constant maintenance of sanitation and management standards aimed at prevention or

control of the disease.

And on the policy of antibiotics the convention noted:

"The dairy industry is always confronted with surplus milk. The problem of antibiotics in milk due to promiscuous treatment for mastitis affects the cheese processor, and is an adulterant in the whole-milk consumed by the public.

Widespread publicity might not only affect the consumption of milk and cheese, but could place the entire dairy industry marketing system in jeopardy.

Dairymen who have or suspect mastitis in their herds are urged to take the matter up at once with their veterinarian, or if this is not possible, with their nearest government agricultural agency, or milk producers' association.

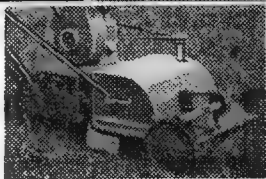
FOR A BETTER GARDEN



... AND TIME TO ENJOY IT

— you need a
Roto-Hoe

- Eliminates heavy digging and tiresome hoeing. Once over does the job — no plows, discs and harrows to buy.
- Revolving teeth break up and aerate the soil, cultivate between rows, destroy weeds, mulch leaves and compost.
- Trims lawns or cuts high grass by attaching "economy 20" Roto-Cutter Attachment, new self-propelled 22" model or 26" Roto-Cutter, (for 3.3 H.P. Roto-Hoe). Change from tiller to cutter in seconds with new "PRESS-MATIC" Hitch.



Ladies are particularly enthusiastic about the Roto-Hoe. It's so easy to handle. Roto-Hoe for 1958 offers choice of 3 models and 6 handy attachments. Prices are surprisingly low.

Before you consider the many imitations, why not find out why, since 1936, tens of thousands of gardeners have bought the pioneer of all front-mounted tillers — ROTO-HOE.

Write for free literature.

ALLIED FARM EQUIPMENT LTD.
Box 53, Winnipeg, Man.

GRAIN BELT FARM EQUIPMENT LTD.
Box 1184, Regina, Sask.

NORTHWEST FARM EQUIPMENT
LTD., Box 351, Calgary, Alta.

ROTARY EQUIPMENT SALES,
523 Agnes St., New Westminster,
B.C.

"Oh! What a beautiful day!..."



You'll say this
every day
after you
install a

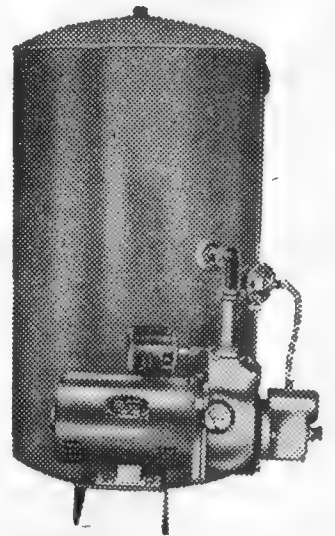
FAIRBANKS-MORSE Ejector WATER SYSTEM

There are so many ways it will make living easier around the home or farm. Just think of it, all the water you want whenever you turn on the tap in the kitchen, bathroom, laundry, garden or barn. Not just one tap at a time either, because this F-M System delivers enough water for three taps in use at once.

The F-M Ejector System is convertible for SHALLOW WELL or DEEP WELL OPERATION

To change from shallow well to deep well, should that become necessary, is an easy matter with this F-M System. It is only necessary to make two simple changes ... and no special tools are needed. The unit can also be changed from deep to shallow well service.

This F-M Ejector System is a real money-saving investment, too. It's lower in first cost. Because it is completely assembled when shipped it costs less to install — and, it costs less to operate because it is self-priming and has only one moving part. There is nothing to wear out and greasing or oiling is never necessary. You'll find this is the water system for you. See your F-M dealer for full details or, if you prefer, send us the coupon.



F-M Ejector Systems are available in sizes and capacities for most needs and in 1/2 to 1 H.P. models.

Other F-M Products for Easier Living



F-M Water
Heaters
...for operation by
electricity or gas.



F-M Water
Softeners
... manual and
automatic models.



F-M Sump
Pumps
... for every
draining need.

- ☐ WATER SYSTEMS
- ☐ WATER HEATERS
- ☐ WATER SOFTENERS
- ☐ LIGHT PLANTS
- ☐ SPACE HEATERS
- ☐ SUMP PUMPS
- ☐ LAWN MOWERS

The Canadian Fairbanks-Morse Co. Limited
980 ST. ANTOINE ST., MONTREAL, QUE.

Please send me information on the items I have checked.

NAME.....

ADDRESS.....

Star performers in every ring...

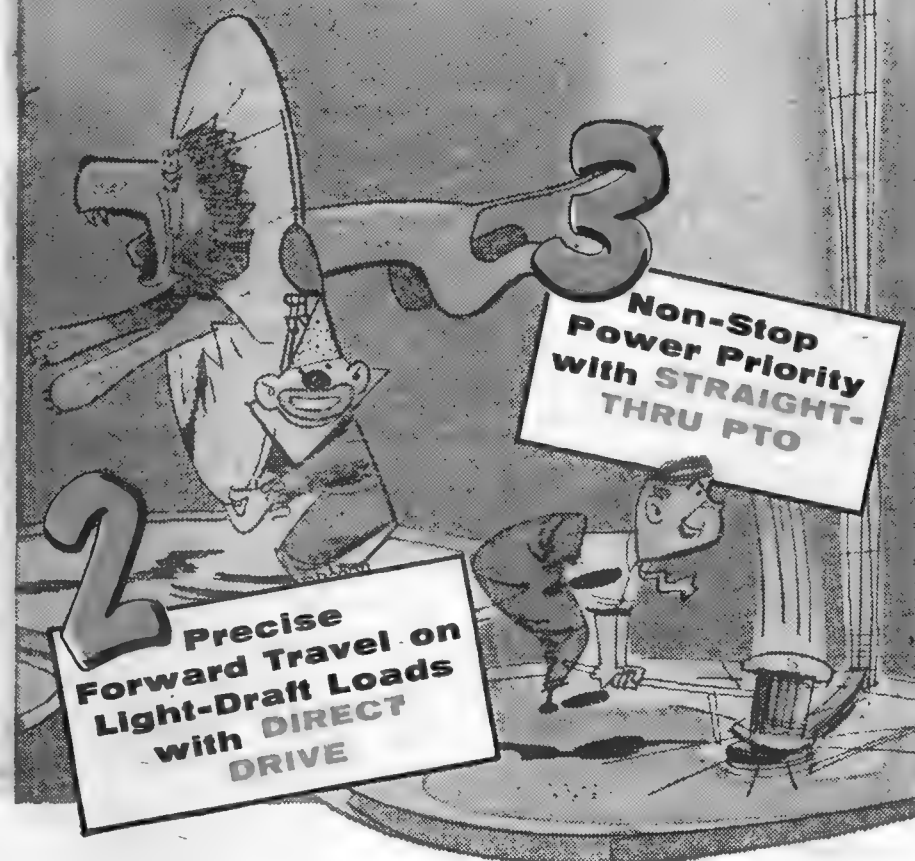
Only *Case-o-matic Drive* can offer you this

3-in-1 combination!



New 5-plow Case-o-matic Drive 800 is available in standard four wheel model, adjustable front axle or choice of dual or single front wheels... diesel, gasoline, LP-gas or distillate fuel... 8 power ranges.

1 Doubles Pull-Power on Heavy-Draft Loads with HYDRAULIC TORQUE CONVERTER



2 Precise Forward Travel on Light-Draft Loads with DIRECT DRIVE

3 Non-Stop Power Priority with STRAIGHT-THRU PTO

Here, in one tractor, is the versatile power combination you've always longed for but never before been able to buy. Here is mighty pull power... precise control... power take-off efficiency... handling ease without comparison. And only a Case-o-matic Drive tractor can offer you this unique 3-in-1 farm power combination!

1 HYDRAULIC TORQUE CONVERTER

Revolutionary Case-o-matic Drive senses the load and increases torque power up to 100 percent—instantly, precisely, automatically. Whether you're plowing tough sod... low, wet spots... rank, stubborn crop growth... you pull through smoothly without clutching, shifting or stalling. You operate in a higher working range—which increases your output and cuts your operating costs.

2 DIRECT DRIVE

Case-o-matic lets you switch instantly to Direct Drive with a flip of a lever, giving you precise forward speeds for light-draft jobs like planting, drilling, cultivating... fast, low-power jobs such as mowing, windrowing, raking. And because you normally do these jobs at part throttle, you use less fuel.

3 STRAIGHT-THRU PTO

Case-o-matic Drive gives you straight-thru PTO with non-stop power priority from tractor engine to driven machine. Whether you slow down for a heavy windrow, or soft or rough ground... or move faster through a thin spot... PTO speed remains constant. This means more bales, more forage, more grain per hour.

STAR PERFORMERS IN THEIR OWN RIGHT...

even better performers when powered by *Case-o-matic Drive* tractors



Any Case PTO machine is designed to give outstanding performance. But when you team one of these machines with a Case-o-matic Drive tractor you'll be amazed by a completely new level of efficiency—regardless of crop or field conditions. You'll bale-chop—combine more feed per hour because you can handle heaviest crops without shifting or stalling. You'll harvest the crop when it's right, because you have sure-footed traction... double pull-power for soft fields. You will feel fresher at day's end, because Case-o-matic Drive gives you energy-saving operating comfort and convenience.

Famous Case 140 automatic baler, with new Case-o-matic 800 tractor, bales up to 12 tons an hour. Four-way bale tension builds tight, square-cornered, perfectly-formed 14 x 18 bales of 70 to 85 pounds that stand rugged handling, fit snug and tight for stacking and hauling. They're evenly sliced, too, for fast, easy feeding. Wire or twine-tie models, PTO or engine-drive. Wagon hitch and bale loader are available.

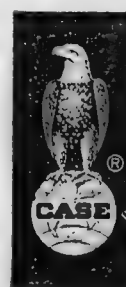


New Case T-10 mower has a heavy-duty, one-piece main frame for rigid alignment of working parts and vibration-free operation... Is perfectly balanced on its wheels for easy, one-man hook-up. Fits any tractor with standard PTO. Close mounted for fast, square turns.

Case forage harvester is America's lightest-running chopper. Fast, heavy-duty knife wheel with over-running clutch has momentum to chop through heaviest crops without clogging. Four quick-change heads available: Row-crop, windrow pick-up, 60-inch cutterbar and corn harvester.



New Case Crop-Way Purchase Plan puts a new Case tractor, baler or other machine to work on your farm now. Make later payments when you have money coming in.



J. I. CASE

J. I. CASE CO. • RACINE, WIS.

1st in Quality for Over 100 Years

MAIL FOR THE FACTS...

Send for complete details about Case-o-matic Drive. Find out how Case-o-matic Drive can give you finer, faster work with greater convenience. Check the items that interest you and mail to J. I. Case Co., Dept. FR-58, Racine, Wis.

- | | |
|---|--|
| <input type="checkbox"/> Full-line tractor catalog—12 sizes | <input type="checkbox"/> T-10 mower |
| <input type="checkbox"/> Big-tonnage 140 baler | <input type="checkbox"/> Forage harvesters |
| <input type="checkbox"/> Big-bale 160 baler | <input type="checkbox"/> Case Crop-Way Purchase Plan |

Name _____ Student ☐

Address _____



FOR SHOCK, EXPOSURE OR SUDDEN ILLNESS

YOU CAN IMPROVE YOUR SWINE

herd by introducing top quality Landrace. We have just received another importation from Scotland made up of the Champion sow at the Edinburgh Show with two of her litter. One gilt and two boars and also a boar sired by a Champion Swedish boar entirely new blood and another sow purchased from Sir Winston Churchill. We have for sale at all times, weanlings, 4 months, 6-month-old sows and boars, guaranteed in-pig sows and gilts, serviceable boars. Catalogue.

**FERGUS LANDRACE
SWINE FARM**

FERGUS ONTARIO



MORE MONEY FOR YOUR WOOL

Added to the Faithful Marketing Service that has been available since this company was organized in 1918 you now get a sizable

Government Deficiency Payment

Having given leadership in obtaining this additional return, this Growers' Company has earned the loyal support of every shipper

Top market values and the full benefit of the extra payment are assured under our orderly selling on a properly graded basis

—Branches and Affiliated Associations Across Canada—

Warehouses at Edmonton, Lethbridge, Regina, Weston,

Carleton Place and Lennoxville

For Sacks, Twine and Shipping Tags, write your nearest branch, or Warehouse, or Affiliated Association

—Detailed Information on Request—

Canadian Co-operative Wool Growers Limited

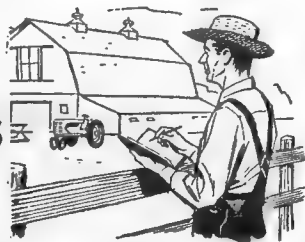
Head Office: 217 Bay Street, Toronto, Ontario

Check your farm improvement needs against this list...

Wise farmers are constantly improving their facilities. They know that in this competitive business, a dollar spent is often two dollars made.

Trouble is, sometimes the money just isn't there when they need it. And that's where The Bank of Nova Scotia can step in—with a friendly low-cost loan.

If your farm would run more profitably with modernization, call in soon and find out how the BNS can help you.



- Family dwelling.....☒
- Poultry house.....☐
- Ice house.....☐
- Machine shed.....☐
- Barn.....☐
- Stable.....☐
- Granary.....☐
- Silo.....☐
- Garage.....☐

The BANK of NOVA SCOTIA

your partner in helping Canada grow

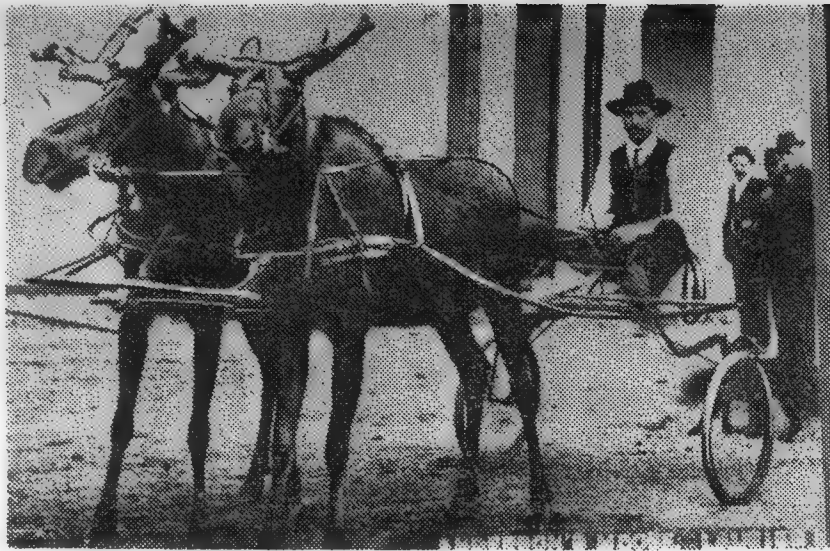


Photo by F. A. Twilley

While it wouldn't win a beauty prize, the moose is nevertheless a stately animal with plenty of bounce in its step. Here is a photo of what has been named Anderson's Moose, in harness to a sulky.

Moose Hunt...

by F. A. Twilley

OUR Canadian moose would never win a prize for looks in an animal beauty show, and why people have the homely old mug mounted and hung up to stare them in the face is beyond me. At the same time the moose is a stately animal taken as a whole and its movements are majestic. To see one on the move, picking up his feet with head high, and with lots of bounce is a pleasing sight.

In early settlement days moose were plentiful here and were fairly tame. I have watched them browsing within easy shooting distance without taking alarm. Having long legs and short necks they cannot reach down to grass like the buffalo so live on bushes.

As a result of their tameness at the time, they were decimated by trigger-happy settlers with the result that they ceased to be around here. One fellow used to brag that he bagged 47 of them one winter, selling the carcass for a few dollars. Another chap shot four in the summer time as they stood by the road side, all with young.

I must confess to having shot one of these noble beasts or perhaps I should say, contributing to its death. An autopsy perhaps would have shown that it died of old age together with a broken heart.

I was never a hunter for two reasons. I could not hit the side of a barn unless the door was shut and besides I had no liking for the sport. Moose are God's own horses and a live one looks better than a dead one.

On this particular occasion I was coming out of the bush with my oxen pulling a load of wood when I noticed this moose standing quite close to the trail. It had a tired, wistful, far-away look, reminding of a weary politician waiting at the door of the Senate. It took very little notice of me.

I had a rifle at home, bought at the time when a bear ran away with one of my calves, so after having my dinner I walked back to see if the moose was still there. It had moved a little further into the trees and the primeval urge to kill that is inherent in all of us, placed there when it was necessary to kill to survive, came over me and I took aim and fired. I did this a good many times, but nothing happened. The moose did not even move.

The Winchester Arms people had a reputation for making good arms but all manufacturers turn out a dud sometimes, whether cars, rifles or combines. I had chanced to be the one to buy a lemon.

At about the thirteenth shot, unlucky for the moose, I must have slipped in the soft snow because I hit the thing and it went down. As I reached the prostrate form it gave me a look like the one Caesar gave Brutus, and gave up the ghost. There it lay and you never saw a deader moose.

I went home and laid the deadly rifle down and took up the camera. I would take a picture of my quarry for all to see. It was a tripod affair with a long tube so that I could be in the photograph too.

Setting up the camera, I went to raise up the head of the moose a little but as soon as I touched it, it jumped to its feet and I lit out for home and mother.

As I said, it either died of old age or shock because I found on examination that I had hit it in the leg and that would not be sufficient to cause its demise. It was full of ticks and thin and I had no moose meat to give to my friends.

I am convinced that it had come to the end of the road, as all creatures must and it makes one think of what must happen to these animals when they can no longer forage a living. My opinion is that they go off and die without much ado, as a dog or a horse will do when the time comes.

Perfumed lambs

SCIENCE has stepped in to confuse the material instincts of mother sheep and thereby save the lives of newborn lambs.

Frequently ewes with twins will neglect the lamb born first and concentrate on the later arrival. Mrs. LaVerne Case of Great Bend, Kan., discovered that a new air freshener that destroys odors could be used to correct this maternal neglect. When the deodorant was sprayed on the neglected lamb and also on the mother's nose, the mother gave equal attention to each offspring.

The trick also works when two ewes have lambs, one with twins and the other with a single, and the single lamb dies. In this case one of the twins is sprayed with the pressurized product and given over to the lambless mother, who promptly accepts it. By the time the deodorizing effect of the spray has disappeared a lasting family relationship has been established.

Seed growers' meet

THE annual meeting of the Canadian Seed Growers' Association will be held at the Ontario Agricultural College, Guelph, Ontario, June 18, 19 and 20, 1958.

Farm stock valuable asset

A GRAIN GROWER with a secondary livestock enterprise should have it large enough to make cost savings and a good income through volume sales, according to Dr. Phillip Thair, farm economist at the University of Saskatchewan.

Greater returns of a larger stock enterprise come from three sources; saving on feed costs over a smaller set-up, more saving on investment costs, as the fixed cost decreases per unit as more animals are produced, and the greatest increase in net income, of course, occurs when a larger herd, litter or flock is produced.

Dr. Thair said a 10 to 15-cow herd would produce a labor return of about 30 cents an hour. A 50 to 60-cow herd would return \$1.60. A three to four-sow herd would yield 55 cents for an hour of labor; a 15 to 20-sow herd would return \$2 per hour. A 300-hen flock would increase returns 20 cents per bird if flock size was boosted to 1,200 hens.

A primary reason for increasing a livestock enterprise, then, was extra income. Dr. Thair said net income from livestock was about one-third of gross income. An increase of \$3,000 from stock receipts would net about \$1,000.

A second reason for a larger stock enterprise was greater security. A larger capital accumulation would act as a padding against blows from the farm economy.

With income from a large livestock herd, the farm could stand lower grain yields. An area demanding an average of 13 bushels of grain to break even might get away with only eight bushels if a sizeable livestock enterprise was adding money to the farm.

Farm economists say there are limitations to increasing the livestock enterprise. One was labor. A thumb rule was to have the enterprise large enough to fully occupy the farmer's time. On the other hand it often did not pay to hire labor.

A second limitation to increasing the livestock enterprise was the cost of taking land out of cash crops to grow feed. If the land would produce more net income as crop rather than feed, it should be left in crop. If net returns from the land were greater growing feed for livestock, this should be done.

Lack of capital limits expansion of a livestock enterprise. At the beginning, the farmer may have to make substantial sacrifices.

Management ability may limit the size of the herd. The number of animals an operator can handle could build up as he gains experience. There are good rewards for better than average management. A man who can use existing buildings or start improved practices at

no extra cost will reap a greater reward.

Weeds are disease carriers

WEEDS are picking your pockets. Not only as robbers of plant food, light, moisture and space, but as carriers of crop disease germs too.

There are two angles to this problem: weeds and native plants as carriers of known diseases of crops, and the danger, with the introduction of new crops and varieties, of the spread from weeds of diseases unknown.

Ergot is an example. It can readily spread to fields from grasses of roadside and headland. Cutting these grasses for hay when in flower is a recom-

mended control measure. Take-all is commonly found attacking couchgrass and its relatives and transferring from there to wheat.

The virus of aster yellows, which last year rose to epidemic proportions, is providing a problem for plant pathologist and entomologist alike. It is spread around by leafhoppers. Many cultivated plants are affected, flax among them.

With the introduction of new crops there is increasing evidence that weeds serve to harbour diseases not previously troublesome. One example is stem rot of rape, a disease that can be carried by sow thistle and the wild mustards as well as by cultivated plants of the mustard family.

There is a good chance also of new diseases moving in from native and weed grasses to infect cereal crops. In breeding for resistance to known diseases we may produce plants susceptible to diseases unknown; diseases present in weed or native plant and awaiting only a suitable host to make the transfer. It would be better if we could detect some of these potential dangers before they develop, says Dr. Henry, Plant Pathologist at the University of Alberta.

The plant pathologists are fully alive to the problem. It received attention at their regional meeting last fall and suggestions and recommendations have been prepared for discussion in June at their national assembly.

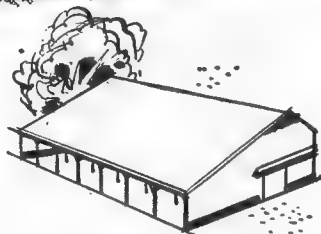


For long lasting fences... Low cost buildings, silos

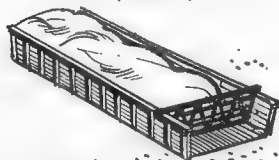
You'll save *all* ways when you fence or build with "Triple C" brand pressure treated wood products.

Save time and work in upkeep and replacement—because CCC pressure treated fence posts, poles and lumber last 3 to 5 times longer than ordinary wood.

Save money—cut your building costs by up to 50% with modern pole type construction that eliminates costly foundations and skilled carpentry. It's the quick, easy, *durable* way to build barns, sheds, shelters and horizontal silos. See your building supply dealer.



Pole barns, sheds, shelters.



Bunker silos sized to your needs.
Self-feeding gate optional.

Send for
FREE CATALOGUE
of Plans...
FILL IN COUPON

This catalogue shows basic plans for a number of pole type structures which are available and which can be adapted in size to meet your requirements.



CANADA CREOSOTING COMPANY LIMITED
P.O. Box 255, CALGARY, Alta.

Please send me illustrated catalogue on Pole type construction with "Triple C" Brand pressure treated wood.

Name.....

Address.....

City.....Prov.....

**CANADA CREOSOTING
COMPANY LIMITED**

AFTER spending a considerable portion of every spring struggling with the strange vagaries and temperaments of setting hens, I finally allowed myself time to experiment with a different type of hen, an electric hen. I'm referring, of course, to an electric incubator and my experience with it convinced me that they are certainly more reliable than their feathered predecessors.

An incubator, such as the type I used, can be bought for less than twenty-five dollars. They'll hold around one hundred hen

The electric hen

by Lela Andrews

eggs and they aren't hard on the electricity bill, either. We could notice very little increase in our power bill during the four weeks that we ran the machine.

Such an incubator is one of the simplest machines in existence. It consists simply of a large, round tray where the eggs are held, a thermometer, a moisture pan, and a cover com-

plete with thermostat and regulator and a small glass window through which to look when your curiosity gets the best of you. So simple is it, in fact, that it's hard to believe that it can really hatch eggs, but it can and does, if properly handled.

An instruction sheet which comes with the incubator tells you how to set it up. A basement room is a good location. There, the temperature and humidity are appropriate and no direct sunlight strikes the machine. It should be level, too. I set my incubator on apple boxes and this brought it up to a better height for tending it. An incubator requires daily attention so you want it in an easily accessible place.

The incubator should be plugged in and allowed to run for a day before the eggs are added. That day is a busy one for the operator. I almost ran my legs off trying to get the temperature regulated properly. For the first three weeks of the hatch the temperature should be held at no lower than 102 degrees and no higher than 103 degrees. It sounds simple, but until you learn just how to regulate the thermostat, your temperature may vary anywhere from 60 degrees to 105 degrees! And you're not allowed to adjust the temperature for twelve hours, so get all your adjusting done beforehand.

Fresh eggs are best for hatching purposes and they shouldn't be washed or cleaned. This removes the natural bloom and the chances of hatching are lessened. And an incubator works just as effectively for duck, goose or turkey eggs as it does for hen eggs. Each type of egg requires a little different handling, however, so it's not a good idea to mix the hatch. I chose duck eggs for my purposes because I had plenty on hand. I put fifty of them in the incubator. It would have held more, of course, but who wants more than fifty ducklings hatching at one time?

I took India ink and painted a large X on each egg before placing it in the incubator. The eggs had to be turned twice daily for almost the entire hatching period, and the X told me at a glance, each time, which eggs had been turned and which hadn't.

I began turning my duck eggs on the third day. From then, until the 26th day, they had to be turned every twelve hours. This is a tedious task, but a necessary one and the eggs have to be handled with care. You mustn't jar or shake them for fear of rupturing the blood vessels of the germ. Beginning the 7th day, the eggs have to be cooled somewhat, too. This is done by leaving the incubator uncovered for ten minutes the

first day and increasing the time by two minutes each day after until the 21st day. I well remember the day I left the incubator uncovered and forgot it! When I rushed back hours later, the eggs were still slightly warm and apparently unhurt, so I clapped the lid back on and hoped for the best.

There are two days during the hatch when you're allowed to candle the eggs. This is a liberty, I suppose, designed especially for curious people and I was curious. There were many times during those four weeks when I was strongly tempted to break an egg just to see what was happening. But I resisted the urge and attempted candling instead.

With duck eggs, the eighth and fifteenth days were recommended for candling. I set a shoebox over a light bulb, made a hole in it and placed the egg to be candled in the hole. This enables you to look right through the egg, but if you're as inexperienced in such matters as I was, you don't learn much. My instruction sheet informed me that an infertile egg would appear perfectly clear, that a dead germ would show as a small red line adhering to the inside of the shell and that a fertile, living egg would show a small dark spot with blood vessels radiating spiderlike from it. It also advised that cloudy eggs or eggs in which the embryo didn't show up clearly should be discarded because they likely wouldn't hatch, anyway.

This was cheering news because after peering avidly at some twenty-five of my eggs, I was convinced that not one of them would hatch. My eyes could discern no spiders or anything else in those eggs. All I could see was a blob that flopped whenever the egg did. However, I returned them to the incubator, wished them luck, and continued to tend them as though I really believed there were ducks in them!

And there were!

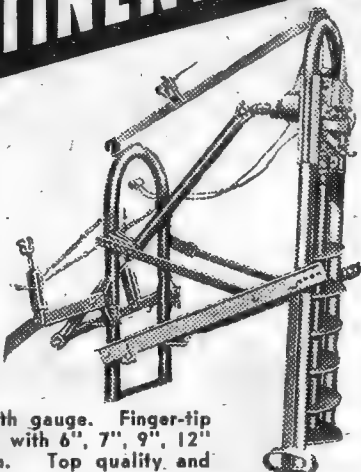
Two days before the hatch was expected to come off, I peeped in the little glass window to check on the temperature, and to my surprise, there lay a fluffy little yellow duckling sprawling over the thermometer. Of course, the incubator has one disadvantage. It hatches the eggs, but it refuses to hover the results of the hatch. From then on, they're your responsibility. My eggs hatched on the 7th of May and the weather was still quite cool. It was almost a week before I could put the ducklings outside and for several weeks after I still had to bring them in at night. And there are many more pleasurable things I can think of in this world than keeping thirty-eight ducklings in the house.

Also, one must beware of power failures. It's a good idea to get your hatch started early so that it will be completed before the spring thunder storms

New Quick Hitch ROBIN-CONTINENTAL

HEAVY-DUTY HOLEDIGGER

Just drop three pins in place and this 3-point hitch digger is completely mounted. Sits up, ready to attach without heavy lifting. A real rugged, heavy-duty digger, yet a 12-year-old boy can operate it single-handed from the tractor seat. Features built-in power lift, five Timken bearings, automatic depth gauge. Finger-tip tilting for any hole angle. Available with 6", 7", 9", 12" or 14" auger digging to 48" depth. Top quality and performance, moderately priced.

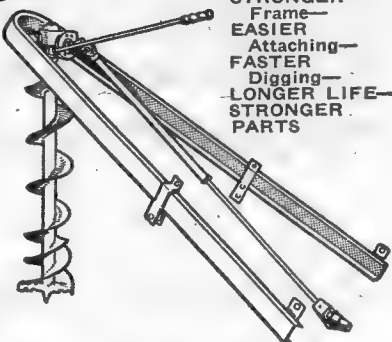


\$332.50 to \$357.50

Automatic ROBIN-KIM POST HOLE DIGGER

A High-Grade Automatic Digger

Simplicity in design allows digger to be used on most tractors with hydraulic systems. Digging is controlled from the tractor seat. Balanced drive, universal joints and special shear pin. Digs straight vertical holes 44" deep on normal terrain automatically. Adjustment arm allows operator to dig holes other than vertical, and vertical holes on uneven ground. Available in 6", 9" and 12" augers.



FEATURES—
LONGER Auger—
STRONGER
Frame—
EASIER
Attaching—
FASTER
Digging—
LONGER LIFE—
STRONGER
PARTS

\$147.50 to \$177.90

ROBIN SUPER-D POST HOLE DIGGER

A versatile, quality-built digger that has won wide popularity

Hand-controlled clutch gives one-man operation at the digger head. Has steel reduction gears, telescoping drive shaft, replaceable 4-way blades of finest tool steel. Attaches to any make of tractor, truck or jeep with power take-off. With auger to cut from 5" to 10" diameter and from 30" to 48" deep. The biggest digger value on the market, complete with slip clutch.



\$129.50 to \$140.00

Also ROBIN STANDARD POST HOLE DIGGER
A high-performance digger at a low price

Only **\$99.00**

See them at your ROBIN Dealers or write to: **ROBINSON MACHINE & SUPPLY CO. LTD.,**

5206 - 1st Street S.W., Calgary, Alberta

ROBINSON MACHINE & SUPPLY CO. LTD.
CALGARY, ALTA. REGINA, SASK.

start playing havoc with your electricity. My eggs were set on the 9th of April and that was none too soon. At the last of my hatch, we did have one power failure, but it only lasted a few minutes and the eggs weren't harmed. They could probably withstand a failure of an hour or two, also, without getting completely cold, but once they're allowed to cool completely, your chances for hatching are poor. The last of March or the first week in April are your best times for getting a hatch started.

So it is that electricity has taken over the long time duty of the "clucker". Not only is the electric hen more reliable, but she's easier to get along with and I've yet to hear of one leaving the nest. I'm convinced, now, that hens should lay eggs, but electricity should hatch them.

Value of summerfallow

ALL crops apparently succeed best on summerfallow.

This seems to be borne out by the crop sequence studies at the Portage la Prairie Special Crops Substation which were determining the response of special crops when following other crops or summerfallow.

The station adds that there are instances however when special crops are at a disadvantage on summerfallowed land because of delayed maturity and frost danger. Soybeans and corn are particularly susceptible to this hazard.

In the tests pea stubble ranked next to summerfallow, especially as a preparation for sunflower, buckwheat, barley, wheat and to a lesser extent corn and sugar beets. Land that had grown soybeans came close to peas as a favorable crop to precede others.

Preserving fence posts

FENCE POSTS still need protection on the prairies.

Experiments which have been conducted during the past 25 years at the Range Experimental Station, Manyberries, Alberta, indicate that it is a good investment to treat fence posts with bluestone, creosote or

coal tar, depending on the kind of posts. An additional spending of from 5 to 15 cents per post for preservation will more than double the life of the posts. Bluestone is satisfactory for poplars, willows or other green woods. A solution of 2½ to 3 lbs. to a gallon of water should be used.

Mount Royal College



GRADE XII

All Matriculation Subjects

GRADE X and XI

Instruction also available to Adult Students.

JULY 2nd to AUGUST 14th, 1958

Require further study in certain subjects? You can cover a full year's work in any High School academic subject at Mount Royal College Summer School.

SEND FOR FULL PARTICULARS TODAY.

Residential Accommodation

Board and Room available for out-of-town students.

MAIL COUPON TODAY — OR PHONE AMherst 6-4611



To: **THE REGISTRAR,**
Mount Royal College,
Calgary, Alberta.

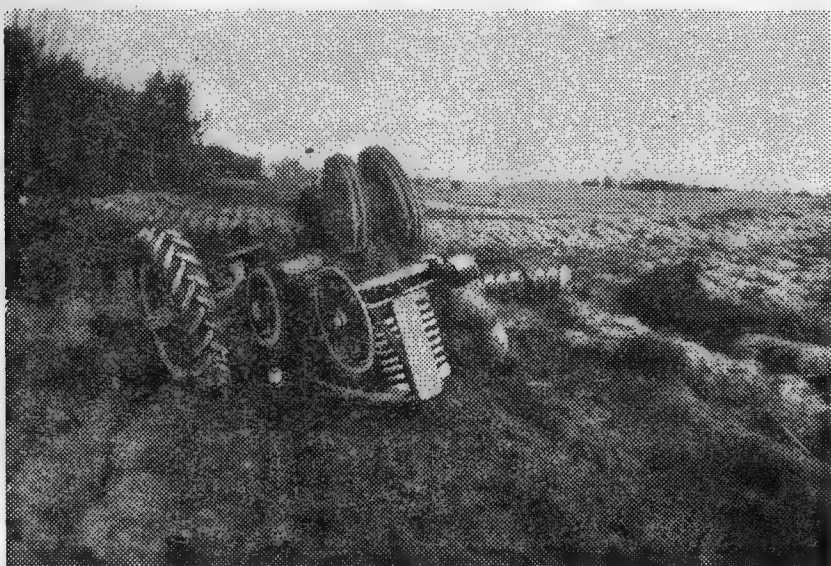
Please send full particulars on Mount Royal College Summer School.

NAME _____

ADDRESS _____

Mount Royal College
CALGARY, ALBERTA

FR-1



Jens Hansen, of Bilby, Alta., sent us this dramatic photograph of an accident he had last summer, and he hopes that it may serve as a timely reminder to other farmers as they start a new season's work. The tractor is still the most dangerous implement on the farm, and Mr. Hansen considers himself lucky indeed to have escaped without injuries.

Care needed with fertilizers

THE effect of fertilizer on cereal grains depends considerably on soil moisture at seeding time, and climatic conditions during the growing season. The most effective way of fertilizing small grains is by using a fertilizer attachment on the drill.

Low nitrogen fertilizers such as ammonium phosphate 11-48-0 can safely come in contact with grain seed. But a fertilizer with a high rate of nitrogen, particularly in nitrate form, low in phosphate may cause injury to germination under some conditions. The risk of harm is greater when the seed and nitrate are placed together in dry soil. The longer they remain so, before being moistened by rain, the greater the damage may be. With moderate rates of nitrogen, phosphate reduces the harm which may occur to grain in dry soil.

Fertilizers should be applied strictly according to instructions; or advice should be obtained from authentic sources.

Much MORE life insurance at much LOWER cost

Sun Life's new Family Security Benefit can give the family man a lot more life insurance when he needs it most. This is *extra* life insurance at low cost.

Family Security Benefit, available with the purchase of new insurance on standard plans, provides extra protection up to twice the amount of the basic policy. A new \$5,000 ordinary life policy, for example, entitles you to include as much as \$10,000 of this extra insurance at a low rate.

Family Security Benefit need not run out. It can be continued to age 65 by renewal every five years and it can also be converted at any time until age 57 into permanent life insurance — without evidence of good health.

Send the coupon below for full particulars.

**WITHOUT
OBLIGATION
PLEASE SEND ME
FULL INFORMATION
ON SUN LIFE'S
FAMILY SECURITY
BENEFIT**

SUN LIFE OF CANADA

218, Sun Life Building, Montreal

Name _____

Address _____

Town _____

Date of Birth _____

CAMP EQUIPMENT

LAWN AND GARDEN FURNITURE
CANVAS PRODUCTS OF ALL KINDS



**TENT
AND
AWNING
LTD.**

HOME OF
**SPACE
BRAND
TENTS**



614A - 17th AVE. W., Ph. AM 2-7606

**Weigh without scales
with the new**

WEIGHBAND



Put the Weighband
round the girth, pull
taut and read off
the weight.

That's all there is to
it. Guaranteed accu-
rate to within 3%,
the Weighband is
easy to read, can
be carried in your
pocket, and will last
for years.

Gives both live
and dead weight
with equal accu-
racy. Save time, save
money, save trou-
ble. Send for your
Weighband
today.

Only \$3.95 post paid

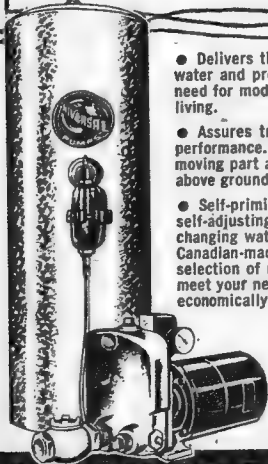
Money back if not satisfied within 7 days
Trade enquiries invited

Sole Distributors in North America

**CANADIAN ORGANIC
DEVELOPMENTS LTD.**

Burns Building Calgary, Alberta

Dependable Low Cost
WATER
from wells to 400 feet!



- Delivers that extra water and pressure you need for modern farm living.
- Assures trouble-free performance. Only one moving part and it's above ground.
- Self-priming and self-adjusting to changing water levels. Canadian-made in wide selection of models to meet your needs most economically.

THE
RUGGED
PUMP
FOR
RUGGED
JOBS

UNIVERSAL

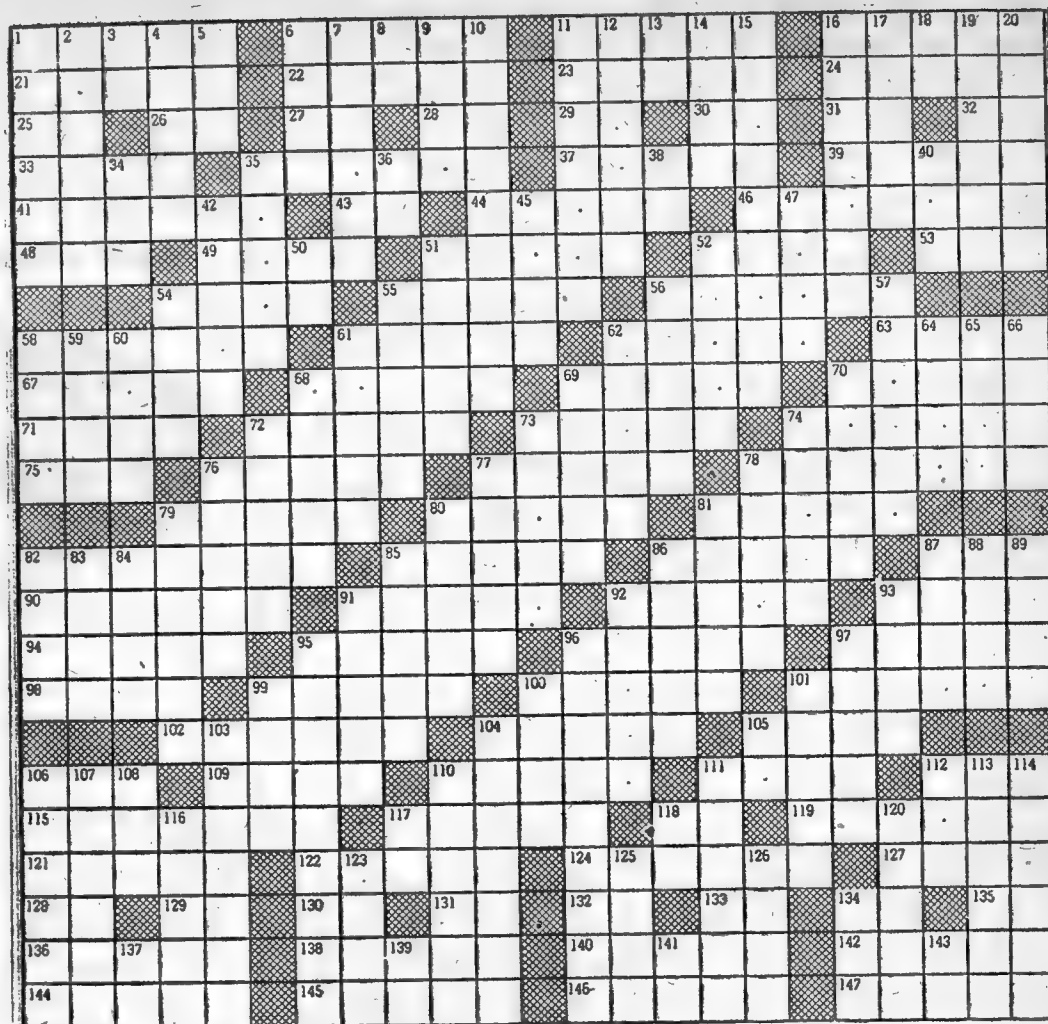
JET WATER SYSTEMS

JACUZZI UNIVERSAL (Canada) LTD.

Box 514, Toronto 15, Ontario
Please send free bulletins on Universal water
systems and name of nearest dealer.

Name _____
Address _____

Crossword Puzzle



ACROSS

- | | | | | | |
|------------------------------------|----------------------------------|-------------------------------------|--|------------------------------|-----------------------------------|
| 1 Complete disorder | 58 Three times | 104 Wary | 3 Cooled lava | 56 Move stealthily | 95 Smashed into small pieces |
| 6 Medieval weapon | 61 Prods | 105 Pronoun | 4 Oil of roses (var.) | 57 Disagreeable predicament | 96 Angular toothlike projection |
| 11 Ostrich-like birds | 62 Serf | 106 Egyptian solar deity | 5 Occupied a seat | 58 Norse god | 97 To make a search |
| 16 Game | 63 To fissure | 109 Soaks | 6 Quarrel | 59 Rabbit | 99 To cut, after snick |
| 21 Lasso | 67 Frequent | 110 Outstrips | 7 Roof of the mouth | 60 Old | 100 Gone by |
| 22 Courtyard | 68 Disclosed | 111 Vases | 8 French for "and" | 61 Aches | 101 Boredom |
| 23 Weird | 69 Plant allied to onion | 112 Mineral spring | 9 Military assistant | 62 Coast | 103 Weasels |
| 24 Of a cereal grain | 70 Long-legged bird | 115 Farms, famous racing stable | 10 Indulged in riotous festivity | 64 Fastener | 104 Part of house (pl.) |
| 25 Babylonian deity | 71 Trieste wine measure (pl.) | 117 Greek letter | 11 Keeps | 65 Poker stake | 105 Correlative of either |
| 26 Size of shot | 72 Coarsely ground hominy | 118 Preposition | 12 Card suit (pl.) | 66 An equal | 106 Reconnoiters |
| 27 Mulberry | 73 Gleaned | 119 Speaks | 13 Comparative ending | 68 Mohawk chief | 107 The Hittite language |
| 28 The gods | 74 Virtuous | 121 Mexican Indian | 14 Japanese aborigine | 69 Map | 108 American Indians |
| 29 Symbol for tantulum | 75 Female ruff | 122 Potential energy | 15 Extremely reticent | 70 To smother | shell currency (var.) |
| 30 State (abbr.) | 76 Designs | 124 Society island in Winward group | 16 Musical entertainment | 71 To intone | 110 Emitted |
| 31 Near (abbr.) | 77 Unadorned | 127 Goddess of discord | 17 Seraglio | 72 Small valleys | 111 Joins |
| 32 Artificial language | 78 Kind of canary bird | 128 Syllable in Guido's scale | 18 Ethyl (abbr.) | 73 Weight of England | 112 Weight of India |
| 33 Unsorted wheaten flour of India | 79 Adolescent years | 129 Baron (abbr.) | 19 Peaceful | 74 To intone | 113 Elementary textbook |
| 35 Displays publicly | 80 Retail shop | 130 Japanese measure | 20 Blows air forcibly through nose | 76 Part of hammer (pl.) | 114 Item of property (pl.) |
| 37 A shaded retreat | 81 Male duck | 131 Child for father | 34 Cornish prefix: town | 77 Adhere | 116 Brown earth valued as pigment |
| 39 One who grants | 82 Swiftest part of a stream | 132 Prefix: not | 35 Look at fixedly | 78 Withered old woman | 117 Decigram (abbr.) |
| 41 Small tower | 85 Flash | 133 Toward | 36 U. S. soldier | 79 Figures of speech (pl.) | 118 Exclamation of surprise |
| 43 Kind of palm | 86 Male bee | 134 Sacred Hindu word | 38 Exist | 80 Lax | 120 Rate of movement |
| 44 Stereotyped | 87 American Indian | 135 Pronoun | 40 Former title of Governor of Algiers | 81 Shot in golf | 123 Russian hemp |
| 46 Constituent part | 90 Vegetable (pl.) | 136 French river | 42 Proclamation | 82 Genus of African trees | 125 Singing voice |
| 48 Compass point | 91 To ice, in cookery | 138 Go in | 45 Rodents | 83 Single | 126 Extreme conservative |
| 49 River valley between hills | 92 Swoon | 140 Additional | 47 Narrow road | 84 Hoar frost | 134 Pronoun |
| 51 Teen-age trousers | 93 Banner | 142 Only horse to beat Man of War | 50 French article | 85 Look angrily | 137 Symbol for sodium |
| 52 Asterisk | 94 Illuminating devices | 144 Cicatrices | 51 Gags | 86 To trifle | 139 Symbol for tellurium |
| 53 Affirmative answer | 95 Rough shelter | 145 Accomplishments | 52 Cudgel | 87 A hodge-podge | 141 Greeting exclamation |
| 54 Dreadful | 96 Dig | 146 Clamorous | 54 To eat | 88 Short for canvas covering | 143 Continent (abbr.) |
| 55 Harbors | 97 Set of folded sheets of paper | 147 Bellows | 55 Harbors | 89 Type of molding | |
| 56 Restricts to a scant allowance | 98 Opposed to weather | | | 91 Mountain ranges in India | |
| | 99 Voracious fish | | | 92 Flowerless plants | |
| | 100 Soft gelatin capsule | | | 93 Animal's pelt (pl.) | |
| | 101 Continent | | | | |
| | 102 Upper house of Congress | | | | |
| | | DOWN | | | |
| | | 1 Originate | | | |
| | | 2 Gap | | | |

Solution On Page 38

Mutton eating needs 'selling'

"LAMB is the meat of kings," according to R. W. Shopland, of the Canadian Co-operative Wool Growers' Association. Speaking at the Saskatchewan livestock convention, he said lamb is the only dish acceptable to all members of a United Nations dinner.

Despite being a tasty dish, Mr. Shopland said Canadians ate only 2.7 pounds of sheep and lamb last year. One reason for the low consumption was a low supply that varied greatly from season to season. With a small, uncertain volume retailers could not advertise and promote lamb the way they could other meats. This meant the market did not expand much. A second reason for the low consumption was after the Second World War the U.S. market absorbed much of the Canadian lamb crop. Deprived of lamb, the Canadian consumer lost his taste for it.

Retailers in Toronto, however, have proved that advertising will boost lamb consumption. After extensive displays in stores last year, Toronto used up 45,000 carcasses in one week.

Mr. Shopland said that despite an increasing use of synthetic fibres, wool was 86 per cent of all fibres used in the world today. Demand for wool is brisk in Canada with 7.8 million pounds produced, but 59 million pounds consumed. With 10,000,-

000 pounds of lamb sold it was hard to realize why sheep production had fallen so low.

Mr. Shopland said he felt one reason farmers have not turned to sheep is that without farm records sheep profits are not so noticeable. Sheep make their profit on low cost. Often gross returns from cattle exceed sheep so at a superficial glance they appear more profitable. A reliable cost study, he said, will show sheep most profitable, however.

Besides money-makers, sheep double well as brush and weed removers.

Although sheep make a good profit on poor land, "there is no land too good for sheep." Wool requirements of a farm flock would be fleece with a fine length of two inches or more. They should be free of excessive dirt, hair, face and leg clippings. A fairly uniform grade is important. Mr. Shopland said there was a swing to lighter lambs dressing out at over 50 pounds,

but finishing at 100 pounds live weight. Large-framed sheep seem on the way out.

Choosing ewes, use ones with good growth records, uniform conformation and able to produce twins. Wool should be white, uniform and well carded. Mr. Shopland advised against buying bare-bellied sheep.

Sheep can produce a prime carcass on grass alone. Creep feeding with grain as dry pastures lessen ewe's milk, will help lambs make better gains. As milk supply drops off, grain increasing makes up for it.

Seed grain assistance

FREIGHT assistance on movement of carload lots of registered and certified seed grain will again be provided by the Saskatchewan Department of Agriculture, it has been announced.

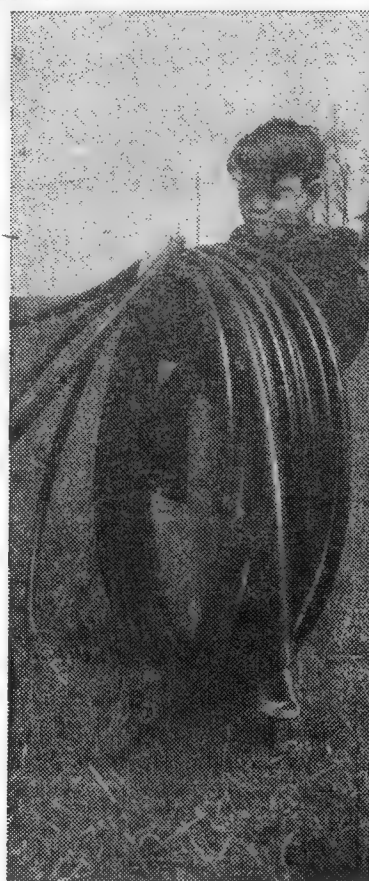
The freight assistance policy is designed to encourage more

extensive use of registered and certified seed by Saskatchewan farmers.

"Saskatchewan seed growers produce three to four million bushels of high-class seed grain annually but not enough of this seed is used for crop improvement purposes," said the minister of agriculture, "and surveys made by the Department of Agriculture show clearly that the quality of our seed grain needs improvement."

Half the freight is paid on carload lots of registered and certified seed grain moved within the province. This applies to both bulk and bagged seed. Farmers are encouraged to organize carload shipments for their district and thereby bring in high quality seed stocks.

Seed may be ordered through elevator agents. Wheat Board regulations permit farmers to over-deliver 400 bushels of grain to pay for registered and certified seed grain.



Pipe made of C-I-L POLYTHENE is light, flexible, easy-to-install!



Film made of C-I-L polythene is another farming essential. It's being used on modern farms to construct low-cost silos and greenhouses, as storm windows for outbuildings, and as tarpaulins to protect equipment. It also makes a wonderful mulch for low-growing row crops — retains moisture around plants, keeps them clean and disease-free.

Successful farmers find that substantial savings are realized when livestock and poultry are supplied with fresh running water.

The fast, easy, inexpensive way to lay cold water supply lines to barns, grazing areas and dipping points is with pipe made of C-I-L polythene. One man can lay thousands of feet a day because its lightness and flexibility make it easy to handle; joints are made with a knife cut and simple, economical fittings. When buried below the frost line it is practically indestructible — and it will not rust, rot, scale or taint water.

Available in lengths up to 400 feet, in ½" to 6" diameters, at your hardware or farm supply store.

C-I-L PLASTICS

Canadian Industries Limited, Plastics Division, P.O. Box 10, Montreal, supplies polythene resin to pipe and film manufacturers.

MULTI PURPOSE
Broad Jet & Cattle Sprayer

All around Hi-pressure Sprayer for cattle, other livestock, orchards, buildings, fence rows, roadside, irrigation ditches. Three-way nozzle lets you spray up to 56-ft. for field and crop work.

Handles Liquid Fertilizer Perfectly
Designed to fit any make or model of tractor.

3 WAY QUICK CHANGE NOZZLE
UP TO 350 lbs. PRESSURE
1 to 15 Gallons per minute

complete sprayers AS LOW AS \$79.50

New revolutionary wear-resistant "nylon-roller" Pump — stands up under heat, wear, impact of hi-pressure. Neoprene spray hose with leak-proof connections — a quality product priced for less. Write for Booklet showing complete line of Tractor and Engine Sprayers, all at new low prices.

THE AUTOMATIC EQUIP. MFG. CO. LTD.
SWIFT CURRENT, SASK.

COPENHAGEN

COPENHAGEN SNUFF

"THE WORLD'S BEST CHEW"

THE African Ivory Coast Government is paying cocoa and coffee producers for one-third of the cost of agricultural fertilizers up to 446 pounds per acre on cocoa lands, and 669 pounds per acre on coffee plantations.

EVEN tiny Belgium for the first time is getting into the wheat export business due to increased production and surpluses.

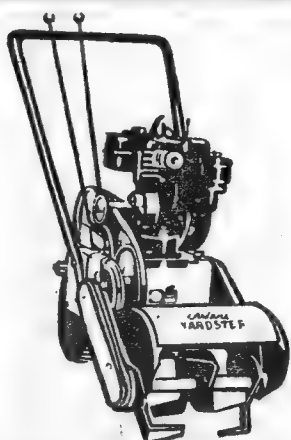
Wheat production and acreage in New Zealand has been declining and last year the country had to import about 11 million bushels.

ACCORDING to winter surveys it is estimated that the growing of durum wheat in 1958 will be sharply curtailed on this continent; a reduction of about 50% in the U.S.A., and 34% in Canada.

BEFORE YOU DRILL FOR WATER
enquire about our Geophysical Survey Service and avoid the risks of a dry hole.
All our Electronic surveys in the Prairie Provinces are guaranteed.
"ELECTRONICS."
BOX 172 NELSON, B.C.

America's Finest Garden Tractor

ARIENS
Yardster
ROTARY TILLER
WITH INTERCHANGEABLE ATTACHMENTS FOR ALL YEAR USE



Garden, Lawn and Yard care is a breeze with Ariens Yardster. Powered with 2 h.p., 4-cycle engine and self-propelled with optional 2-speed wheel drive. Just guide it! Prepares seedbed. Cultivates garden, shrubs, orchard. Clears snow from walks, driveways. Yardster attachments on and off in minutes.

PRICED AMAZINGLY LOW.

For lowest priced Rotary Tiller see ARIENS JR.
For market gardens and large acreage the famous ARIENS trans-a-matic Rotary Tiller, unequalled for power, traction and performance.

See your ROBIN Dealer or write for information and literature.

ROBINSON MACHINE & SUPPLY CO. LTD.

5206 FIRST STREET S.W.
CALGARY, ALBERTA

... Pellets ...

THE FARM Journal says that 44,104 people died in the U.S. last year of gas; fifty put a match to it — 54 inhaled it — 44,000 stepped on it — which is not funny!

MOST WESTERN farmers will be glad they don't have to monkey with tobacco seed. It is said that a tablespoonful will plant more than 6 acres.

ALBERTA had the second highest production of any Canadian province in honey last year, with 6.4 million pounds. Ontario was first — 10.3 million pounds. The total Canadian crop was 31 million pounds — up about 7 million pounds over 1956.

FREE AS A BIRD? The Alaskan Curlew spends from May till August in Alaska and spends the rest of the year, less travelling time, on the seashores and tropical islands of South America.

THE BREEDING and developing of Guernsey cattle in Canada received a boost with the announcement by the American Guernsey Cattle Club (head office Peterborough, New Hampshire), that four "All American" awards had been won by Canadian Guernseys.

A POWER plant located about 12 miles from Valleyview, Alberta, has the first gas turbine to burn flare gas direct from an oil-field, particularly in the commercial production of electricity.

THE DATES of the annual Calgary horse show have been set for five days, beginning Tuesday, June 3, and running until Saturday, June 7. The show will be held in the Stampede Corral and there will be afternoon and evening performances.

CEYLON has decided against nationalizing foreign-owned teagardens for the time being. There are about 260,000 acres of such teagardens in Ceylon. The rate of compensation was to have been at the rate of \$194.25 (Canadian) per acre.



EXPORT "A"
FILTER TIP
CIGARETTES

FORTY-TWO per cent of the working population of Italy, and more than half that of Greece are farmers.

700 DEATHS by tractors were caused last year on American farms out of a total of 3,700 occupational deaths on farms. One and a half million people were injured in farm accidents.

AUSTRALIA expects to have its smallest wheat crop since 1944. Unofficial estimates place the crop at 90 million bushels, which is about 45 million bushels less than last year's production.

CHILE IS considering a distribution of fertilizers to farmers at low cost as a booster scheme to increase wheat production.

PARAFFIN is being fed to cows in a test in Britain to produce a paler colored butter.

ALMOST 2,000,000 karakul (a sheep with very fine wool) skins were exported from Afghanistan last year.

CUBA is doing a thriving sugar export business with Communist countries; in the first six months of 1957, Russia alone bought \$39.7 million worth of raw sugar.

EVERY INDUSTRY has its trouble the spiced cigarette industry in Indonesia is failing because the price of cloves is too high.

SASKATCHEWAN and Manitoba have announced a reciprocal agreement on moving-van licenses beginning March 1st. Vans carrying household goods from one province to the other will no longer have to pay the license fees of the other province.

THE MANITOBA government ended its last fiscal year with a surplus of \$671,921.84 with revenue and expenditures both reaching an all-time high.

THERE are 65,000 private planes on this continent and the industry experts expect a 400% increase in this figure in the next ten years.

ABOUT 72% of the million tons of wheat Egypt is going to buy this year will be bought from France under the two countries cotton-for-wheat agreement.

CATTLE hides are in demand as illustrated by the fact that the two leading exporters of cowhide, Argentina and the United States, showed an increase in exports last year of 34%.

HERE is a breakdown of the tourist dollar by the Alberta Hotel Association; 25 cents to retail stores; 22 cents to restaurants and food stores; 17 cents to motels and hotels; 12 cents to car servicemen, and 24 cents for refreshments. Presumably what is left went to the farmer.

SOMEONE has figured out that if all the milk produced in America in 1957 had been put in quart bottles piled one on another, the string would reach to the moon and back.

URUGUAY has decreed a 100% free-exchange rate on butter exports in an effort to stimulate butter trade.

1957 WAS a record year for Canadian commercial meat. Close to 2 billion pounds passed through regular inspection channels. Total cattle and calf marketings were 9% higher which was one of the main contributing factors responsible.

WEST GERMANY will continue to import apples and pears from Canada and other countries through the spring months due to a partial failure of the European crop last year.

IN THE 3 WEEKS prior to Christmas Day about 300,000,000 cards and parcels were handled in Canadian post offices IN ADDITION to the regular flow of mail.

ALONG the Amazon river, around Belem alone, there are about 2½ million acres of rich flood plains which have never been farmed. Once under control they would give much of this part of the world a balanced economy.

THE MEAT packing industry was Canada's fifth largest in dollar output in 1956. The industry's sales volume was up \$50 million over 1955, for a total of \$869 million.

AT THE ANNUAL meeting of the Holstein-Friesian Association of Canada it was asked that a special premium be paid the farmer for milk shipped by bulk tank, owing to the high cost of these tanks.

CANADA ranked eleventh in world meat exports in 1956 with a total of over 2,000,000 pounds out of a world total of 5.2 billion pounds.

IN A BREAKDOWN of the current U.S. budget of \$73 billion, Time Magazine shows that 81% will be used for military expenditures; around 6% will go for agricultural costs including farm price supports. All of the other government expenses will have to come out of the remaining 13%.

SASKATCHEWAN had its worst year, in hail damage, in 1957. A statement from the manager of the Municipal Hail Association set the damage figure at 11% of the total crop.

CANADIANS ate, or processed, in 1957 an average of 38,500 cattle, 17,100 calves, 97,000 hogs and over 16,000 lambs each week.

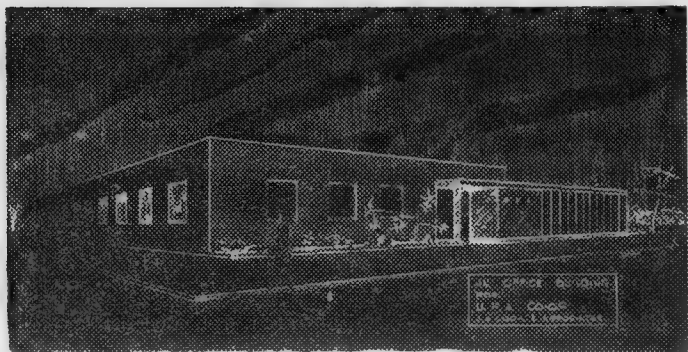
THE RESULTS of a survey by the United States Department of Agriculture shows to net \$2,500.00 for his labor and management a farmer in Montana must have an investment of nearly \$90,000.00.

AT THE TURN of the century 46% of Canadian labor was engaged in agriculture. The percentage at the present time has dwindled to 15%.

A VERY MODERN Canadian Government grain elevator at Churchill, Manitoba, has a capacity of no less than five million bushels. Shipments of grain from this port in 1957 were over 16,000,000 bushels. The first grain shipments were made from Churchill in 1931 and the first cattle in 1933.

IF CANADA could get into the Chinese market with its nearly 700,000,000 people our wheat surplus problem would be solved, according to George McIvor, former chairman of the Canadian Wheat Board.

MANITOBA is more than twice the total area of the British Isles, having 251,000 square miles of which 39,225 square miles are water.



The U.F.A. Co-op is moving its head office. This architect's sketch shows the new building that will go up in Calgary shortly to house the administrative headquarters for the 25,000 members of the co-op. It will cost some \$225,000.00, and will release much-needed space for the use of the Calgary Co-op-store retail merchandising.

Grain augers for seed treatment

THE grain auger can be easily adapted as a seed treater, but the efficiency of its operation has often been held in doubt, says the Swift Current Experimental Farm.

Because the auger was made to move grain, its capacity depends on the speed of operation, angle of the flights, diameter and the angle at which the grain is elevated. Consideration was not given to other uses as long as it could handle grain with a minimum of time and effort.

When used as a seed treater, it must mix the seed with the seed dressing and it is used as a conveyor. The auger, normally, moves a more or less solid cylinder of grain up the flights. There is very little rolling or tumbling of the kernels. The capacity must then be reduced in order that the grain will roll and assist in spreading the chemical. This may be done by slowing the auger speed or by permitting only a limited amount of grain to enter.

Control of amount of grain entering the auger is probably the most satisfactory way of metering the grain. This can be done in two ways both using a hopper into which the auger can be fitted. The seed cleaner can be used to discharge a known quantity of grain into the hopper and since 25 to 40 bushels per hour is the rate for seed grain cleaning, the cleaner can be timed to handle grain at a known rate. Another method would be to place a plate, in which a hole has been cut, in the bottom of the hopper. A few trial runs will determine the flow in bushels per hour.

It is important, with all treatments using the grain auger, that the chemical, be introduced at the lower end of the auger so that efficient mixing can take place.

The injection of the chemical may offer problems but there are devices on the market which can be attached at, or near, the bottom of the auger to accurately meter the proper amount of disinfectant. Then, knowing the rate at which the auger is conveying the grain, the metering device can be set to apply the chemical in the quantity prescribed by the manufacturer.



See **NEW IDEA** ^{IN ACTION} before you buy



Fits any tractor. Use just one pin to attach this mower to any tractor draw-bar, attach the snap-on PTO connection, and you're ready for fast, efficient mowing.

Rough, Tough NEW IDEA Full Trailing Mower Out-performs... Out-sells all others

**Choice of cutter bar lift —
PTO power or hydraulic
...Fastest on and off
...Snap-on PTO connection
...Fits any tractor**

When the mowing gets tough, you'll appreciate your New Idea most. Powerful, gear-driven mechanism lets you run easily through heavy growth. Blades are precision-honed to closer tolerances. Your mower hums—never clatters. Trails perfectly. Cuts square corners.

And you'll like your New Idea mower's convenient features. Simplified hitching, for example. Snap-on PTO connection. PTO operated cutter-bar lift (standard equipment). No parking stand needed.

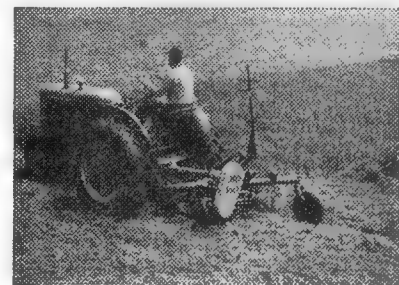
Your New Idea mower will outlast 'em all, too. Here's why:

- Heavy duty, $\frac{3}{4}$ " cutter-bar has nine hold down clips and nine wear plates.
- Extra strong semi-rock guards are standard equipment.
- Hardened fly wheel crank pin operates in needle roller bearing.

- Slip clutch protects main power shaft and knife.
- Sturdy A-frame gives cutter bar extra support.
- Breakaway safety feature lets cutter bar swing back if obstruction is hit.

For convenience, long life, and mowing efficiency, get a NEW IDEA full trailing mower. More farmers want it... more farmers buy it than any other!

See it at your New Idea dealer's. Or write for free literature.



New Idea Semi-Mounted Mower Fits Most Tractors. Has built-in jack, hitches with only two bolts. Choice of three methods of lifting cutter-bar—hydraulic, cable, or spring assist hand lift.

NEW IDEA FARM EQUIPMENT CO. DIVISION **Arco** DISTRIBUTING CORP.
Coldwater, Ohio, U.S.A.

Send FREE hay tool literature checked.

- | | |
|--|--|
| <input type="checkbox"/> Full trailing mower | <input type="checkbox"/> Mounted parallel bar rake |
| <input type="checkbox"/> Semi-mounted mower | <input type="checkbox"/> Side rakes and tedders |
| <input type="checkbox"/> Pull-type parallel bar rake | <input type="checkbox"/> Booklet—Making Hay |

Name

Address

Town State

MANITOBA
Allied Farm Equipment Co. Ltd.
Sutherland Ave. at King
Winnipeg, Man.

SASKATCHEWAN
Grain Belt Farm Equip., Ltd.
1348 Halifax St.
Regina, Sask.

ALBERTA & B. C.
Northwest Farm Equip. Ltd.
Cor. 7th Ave. and 6th St. E.
Calgary, Alberta



Life in the Old West

Hell bent . . . for the "Peace"

by Beatrice Clink

A PIANO stood by the boggy roadway at mile 35 on the Edson Trail.

But no music sprang from its keys, warping now in the damp musty brush; no family pictures adorned the once polished top already swelling and checking un-

der the constant drip of the wet northern forest.

Farther along a mower and a hay-rake barely pushed from the trail were half buried, as the piano was, in the cement-like mud which was everywhere.

And still farther along a dejected mother and her children huddled miserably under a tree on the driest spot they could find. A loaded farm wagon, oxen-drawn, and down to the hubs in the mud rested while a haggard man and two tired boys cut new logs to patch the corduroy road beyond their load. Even the milk cow, tied to the end-gate of the wagon, slumped patiently, but disconsolately where it stood knee-deep in the mud.

This was the picture on the Edson Trail between the years 1910 and 1915. A heart-breaking struggle over a hacked-out bush trail. A seemingly endless fight with muskegs, steep, rocky hills, rivers, insects and always the mud; the discarding of the heavier deeply-cherished, and often needed possessions, so that the wagons could be hauled through.

But it was the trail over which hundreds of settlers who went into the Peace River country in those days triumphed. It was an adventure in adversity which gave those who went through it a satisfying sense of accomplish-

ment, and molded them into a part of the world into which they had gone to live.

Small wonder the slogan of these early pioneers was, "Hell Bent for the Peace!"

In 1910 the Grand Trunk Paci-

also an endless chain of steep back-breaking hills to climb before the settlers reached their coveted goal.

There was an old Indian trail, used by the Klondykers, which ran from Lac Ste Anne, through the bush and muskeg to the Indian post at Sturgeon Lake. From here a crude trail led to Grande Prairie. The practical thing was to link Edson with Sturgeon Lake.

After their survey, the engineers reported that at best it would be a "primitive road", but they did their best to make it passable with the time and means



Photo by Ernest Brown.

A party of settlers stuck in a mud hole in the trail on the way to the Peace River country in 1910. They travelled in pairs to help each other through these tough spots.

fic Railway reached Edson, 100 miles west of Edmonton. The settlers of Grande Prairie, disappointed that the railway did not strike north to their country, were clamouring for a road. The government sent one of its finest engineers to find the best route from Edson into this northern area.

In a straight line, the railroad was only 150 miles from Grande Prairie, but actually it was much farther, with so many rivers to cross and so much muskeg to struggle through. There was

at their disposal. Work crews were sent in to corduroy the worst stretches and find the easiest grades down the steep hills. Bridges were built over the smaller creeks and ferries installed over the larger rivers.

In a few months the road was pushed through to the Mission at Sturgeon Lake. It crossed the Athabasca, the Baptiste, the Little Smoky, and the Big Smoky Rivers. It passed through a territory rich in furs and alive with moose, deer, and caribou.

From Sturgeon Lake the road turned west and followed the old trail from Lesser Slave Lake which crossed the Smoky River at Bezanson and went on into Grande Prairie. This part of the road lay through pleasant, easily traversed land.

When the road was finished, enterprising individuals soon built stopping places along the

IF YOU BREAK 'EM



WE REPLACE 'EM

...that's **EMPIRE**

the sweep with the
down-to-earth

GUARANTEE

That's right! If an Empire sweep breaks — bring it back for free replacement. Of course, if long, hard service has worn it right down to the stem — or young Joe hits it with a sledge-hammer — we know you'll be only too pleased to buy a new one. Ordinary wear and tear won't shorten its long life one bit, thanks to Empire's exclusive "Isothermal" heat treatment for extra toughness.

In deep tillage cultivation, wear and tear on both sweep and cultivator, depend on perfect matching of sweep stem angle to chisel plow shank angle. Only Empire, specialists in tillage tools since 1840, make sweeps in 4 different stem angles.

Write for free literature on Empire high carbon steel sweeps, shovels, teeth, chisels, spikes and steels — they draw light, scour freely and last, and last . . . under all soil conditions.

Allied Farm Equipment Ltd.,
Box 53, Winnipeg, Man.

Grain Belt Farm Equipment Ltd.,
Box 1184, Regina, Sask.

Midtown Farm Equipment Ltd.,
120 Avenue A. North, Saskatoon, Sask.

Kern Farm Equipment Ltd.,
Regina, Saskatoon, Prince Albert,
Swift Current, Yorkton, Melfort, Sask.

ALBERTA & BRITISH COLUMBIA
Northwest Farm Equipment Ltd.,
Box 351, Calgary, Alta.

TRACTORS

Make Farming More Profitable!

WHY WAIT?...go ahead with FIL



Discuss a Farm Improvement Loan with your
nearest Bank of Montreal manager.

BANK OF MONTREAL

Canada's First Bank

working with Canadians in every walk of life since 1817

PORTABLE SAWMILLS

"LITTLE GIANT"
In Stock for IMMEDIATE DELIVERY
AT THESE ATTRACTIVE PRICES:

SAWMILLS — Complete, less saw —
12-ft., 2-head block size \$840.00
16-ft., 3-head block size \$1,065.00

EDGERS — Complete with solid tooth
saw — 2-saw size \$645.00
3-saw size \$755.00

PLANERS — New Improved, 4-sided,
ball-bearing, complete with heads and
knives for S48, blower, built-in coun-
tershaft, Vee-pulleys and belts. Skid
mounted \$3,000.00

MACHINERY DEPOT LIMITED

Phone 51122

1009 - 11th Street East Phone 51122
CALGARY, ALBERTA

trail. They used log buildings. They cut hay in the meadows to sell to the weary travellers, who found frequent stops and days of rest necessary to their stock.

By 1911 the road was in fairly good condition and the rush was on. Thousands of settlers unloaded their effects at Edson and started on the long trek north.

The pioneers started out bravely, going north from the main street of the little frontier town of Edson. Soon they were surrounded by the dark, dripping forest. They encountered short stretches of muskeg, a foretaste of worse to come. For the first time many realized how puny is the strength of a man and two oxen when pitted against the sucking mud of a muskeg.

When they got stuck, there

some seventy miles, but the country was more pleasant and not so low. Once the ferry over the Big Smoky was reached, settlers were practically in the "Promised Land."

Most of the heavy hauling into the district was done in the winter when the river was frozen and the trails good for sleighing. This was the time to lay in a stock of provisions or bring in heavy farm implements.

In time the Grande Prairie and Peace River Transportation Company organized a stage service. It was planned to cover the round trip to the Big Smoky in two weeks. The first stage left Edson on April 17, 1911, and returned May 18. Soon it was running twice a week. Changes of horses were made at stopping-places along the way.



Photo by Ernest Brown.

A large party of settlers camping out on an open stretch on the way to the Peace River country about 1910. In the right background may be seen the frames of the covered wagons which carried the equipment and household goods.

was nothing to do but unload and carry the goods, piece by piece, to the other side of the muskeg. Even with the wagon empty, it was often all the oxen could do to pull it out. It was discouraging work under the hot sun with the constant swarms of mosquitoes and bull flies. Raining, it was even more depressing. The mud stuck to everything like glue.

After twenty miles, the trail reached higher ground, until at Mile 35 it reached the peak of the range of hills south of the Athabasca River. To get to this point had meant long, hard climbs of one steep hill after another. To get their goods up the worst hills, the settlers had to unload and make two or three trips with partial loads or hitch two teams on one load, unhitch and go back for the other load.

The Athabasca River was reached at Mile 53. The descents to the river was steep and slippery. Many teams and loads skidded down the hill. The oxen slid, feet braced, the wagon-box pressing against their rumps.

Finally after weeks, the weary travellers plodded around a curve in the road and there sparkling in front of them lay Sturgeon Lake. Along the lake shore could be seen the many log shacks of the Indians and half-breeds, the stores and hotels, and the Anglican and Roman Catholic missions. Civilization once more!

From here the road led west

The hardships of the trail were often spurs to greater efforts on the part of the travellers and many times their ingenuity triumphed over what seemed like insurmountable obstacles. Mr. A. R. Smith, a pioneer of Beaverlodge, Alberta, tells of riding in as a young man over the Edson Trail in 1915. At one point on the trail, his horse went lame. He had to dismount and decide what to do. It was impossible to continue unless his horse had shoes. Along the road were the carcasses of many dead horses lost by settlers. Seeing one with shoes, he wondered how to get the shoes off without tools. He finally hit upon the plan of making a fire and burning the shoes off the dead horse. Then he transferred the coveted shoes to his crippled mount and proceeded on his way.

Often the trip from Edson to Grande Prairie took three months because of the frequent delays necessary to allow the animals to feed and rest up. It was a hard trip for men, and doubly hard for women, particularly if they had little children.

The Edson Trail was one of suffering, fortitude and heroism. It fell into disuse in 1916 when the E. D. and B.C. Railway arrived in the Grande Prairie country, but in spite of its short five years of life, it left its marks upon that country and its pioneers. Their proudest memories today are that they came in over the Edson Trail.

Mr. Dairy Farmer: SUPPORT THE SET-ASIDE it supports you in all these ways!

The June Set-Aside provides the funds to carry on the regular advertising and merchandising programs of Dairy Farmers of Canada. This is *your work* . . . carried on in *your* behalf to promote the sale of the dairy foods *you* produce. You should support the June Set-Aside *because it supports you*. Here's how:

Advertising—Six month-long dairy food promotions that will blanket the country with a heavy schedule of hard-hitting ads—in 92 daily newspapers—in 262 weekly newspapers—in 7 national magazines—and over 12 French language radio stations.

Publicity—The Dairy Foods Service Bureau will back up these six major promotions with a constant barrage of news releases, food stories, tested recipes, pictures and scripts to newspapers, magazines, radio and TV stations all over Canada. This work also goes on all year round, reaching housewives in a never-ending stream in the months when there are no special promotions.

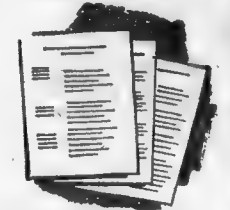
Tie-in promotions—In June, over 4,000 food stores from coast to coast will participate in the *June Is Dairy Month* promotion. These stores will have large, colourful banners and special displays featuring the Dairy Month theme—to reach housewives at the moment when they're buying foods for the family.

How does all this help you? Well, first of all, it helps sell dairy foods **NOW**—and that is mighty important for your income today. But it also helps sell dairy foods tomorrow and in the months and years to come.

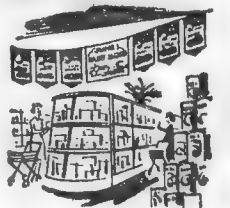
The job of educating people to the regular use of dairy foods rests with the advertising and merchandising programs of Dairy Farmers of Canada. It is a sound promotional program to maintain and increase public acceptance of the goods you sell. Support the June Set-Aside. It is a good investment in your own future.



Advertising in daily and weekly newspapers and national magazines.



Radio commercials over French language stations.



From coast to coast, over 4,000 food stores tie-in with June Is Dairy Month.



Radio and television publicity.



Recipe creation, testing and distribution.



News releases, food stories and pictures for newspapers and magazines.



Colorful point-of-purchase display material.



DAIRY FARMERS OF CANADA

• 409 Huron Street, Toronto, Ontario



Aunt Sal

*When troubled with a problem,
It helps to tell it to a friend;
And find some help to lend.
So let's consult together,*

SEEMS I'll have to mention once more that it is not fair to me if you only sign your initials. I often consider that a certain question should get a private reply and, naturally, if I don't have your name I cannot write.

There was a letter that arrived recently that I wanted very much to answer but had no name attached. The question that provoked this lady into writing was that question about preventing milk puddings from scorching. She signs herself, "M. G., Clairmont, Alta."

But on with the column.

Q.: Where can I obtain patterns for knitted doilies, tablecloths and bedspreads? — Mrs. Alma Friberg, La Glace, Alberta.

A.: Although the knitted ones are often in the minority in pattern books, there is the odd one shown. I'll affix your full name and then others with same hobby as you can write you.

Q.: My family is so tired of beets. Have you a recipe for beet relish that can be made without horseradish? — Mrs. W. J., Rocky Mountain House, Alta.

A.: BEET RELISH

1 quart of cooked beets (chopped or minced)
1 qt. cabbage (chopped)
2 cups sugar
1 tbsp. black pepper
1 tbsp. salt
1 cup vinegar
1 cup chopped onion

Combine and boil for 15 or 20 minutes. Bottle when hot.

Note: Instead of cabbage you may substitute cauliflower and celery and it is very tasty, too. If you use the last, then flavour with celery seed and mustard seed.

Q.: Last fall I canned some dill pickles by my usual method and they turned out so bitter, but other ones (early Russian seeds) done by the same method were successful. What caused the first ones to be bad? The jars were sealed fine. — Mrs. I. T., Mapova, Alta.

A.: Some years because of weather conditions the cukes do not mature properly, and, too, there are certain varieties of cukes that are best suited to the making of dill pickles. You'd better study your seed packages well or consult some one at an experimental station who is better suited to advise you than I am.

Q.: We are anxious to make some hominy but cannot obtain

the right kind of corn. Where can we buy that large white corn? — Mrs. B. R., Sunnybrook, Alta.

A.: I have had several inquiries re this and to date have not been able to contact a market. If any reader has information on this, please write us.

Q.: Where can I get the milk filter dolls to dress? (Still asking.)

A.: Many variety stores have these, but if not able to supply, write to this address: Wansco Yarn Co., 371 Grand St., New York 2, New York.

You will have to pay duty charges on these.

Q.: Have you a good recipe for pumpkin marmalade made with oranges and lemons?

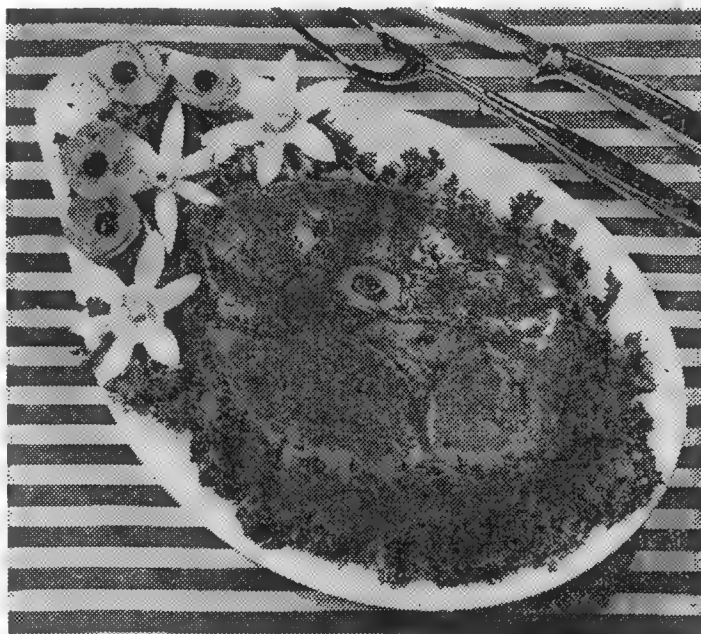
A.: There are very few recipes printed for this, but by home experimentation I worked this one out:

PUMPKIN MARMALADE

To every 3 lbs. of cubed pumpkin I allow 2 cut up oranges and one lemon. Allow $\frac{3}{4}$ as much sugar as fruit. Sprinkle sugar over fruit and let stand over night. Then place over heat and let simmer slowly until clear, but not mushy. Can in hot, clean jars.

Note: All household problems may be directed to Aunt Sal, in care of the Farm and Ranch Review, Box 620, Calgary, Alta. All letters must bear the full name and address of the sender.

Here's An Idea . . .



It's ham steak — All dressed up for spring!

WHAT a truly delightful way to serve ham at your home during the spring season. Ask your butcher for a 1 to 2-inch slice of uncooked ham. Bake it at 325° F., allowing 50 to 60 minutes per pound and basting frequently with maple syrup. on a platter, garnished with curly endive or water cress, turnip jonquils and carrot black-eyed Susans.

To make the Turnip Jonquils: Cut very thin slices from yellow turnip. Make a daisy-shaped cardboard flower pattern for lower part of jonquil. Cut turnip slices into same shape by tracing around pattern with a pointed knife. Make centres in

Aunt Sal Suggests . . .

*Each country has a separate style,
That is different from the rest;
When they pass on all these hints
to us
They offer us their best.*

BACK in our old school readers we read of the universe being referred to as the "great, wide, beautiful, wonderful world." Oh, it's still a mighty fine place in which to live in many respects, but it's wideness and bigness seem to shrink every year . . . thanks to the speed of air travel.

I couldn't help noting how many of the women editors have been indulging in long-range jaunts this past month or so. Trips that took them to such fabulous places as Scandinavia, Holland, Hawaii and the Orient. These were not just vacations. Each writer was as busy as a whole hive of bees flitting round about gathering up ideas, hints new fashions, food ideas and homemaking quirks . . . yes, and new recipes, too. And because each of these editors was instrumental in getting out a publication for Canadian women they had to be ever alert for anything they felt would be of interest to their readers. And if you've been reading any of these particular magazines you'll agree

with me that they did a rattling fine job.

But only the minority of us rush off to far-away places for extended visits. Most of us have to be satisfied to learn of other lands by reading, by television programs, by moving pictures, lectures and by personal contact with people who have come from foreign countries. The last mentioned should never be ignored. Which brings to my mind an encounter I had with a Hollander last year.

He called at my door selling a certain well-known product and because I am always interested in people we got into conversation and he expressed a desire for instruction in English classes. It was only a common courtesy for me to phone those in charge and arrange this for him. I admit that I had told him that I was the lady known to many as "Aunt Sal", so it seemed to me to be the natural thing to do. However, the gratitude that he expressed for the slight favour was almost embarrassing.

I thought the incident was closed, but that's where I was mistaken. A few mornings after that, my husband having left "at crack of dawn" to go hunting, I decided to treat myself to a sleeping-in session, but I was aroused by the persistent ringing of the doorbell. I sleepily tugged on my housecoat and answered the door and there stood my Hollander acquaintance smiling cheerily and looking so pleased with himself. For now, as he said in his inadequate English, he could help me in some way, too. For it so happened that in my most recent column that I write for the local newspaper he had seen a request for the recipe for "Pumpkin bread" . . . so he came poste haste (at an ungodly hour) to give me the recipe. Oh, how thankful I was that I hadn't received him curtly.

In Canada ever since the day in which the English and French settled in this land, we have had a dual approach to most of our pursuits, and I like to think that each of us has been the gainer because this was so. And when more and more lands sent their immigrants to our shores each brought with them a separate approach and we in turn exchanged our ideas with them . . . so the process of absorption and combination has gone on.

From a professional French cook in Montreal comes this rather novel recipe. She admits that it was passed down to her from cooks away back when . . . and she also admits that she is not sure whether its origin is really English or French . . . possibly both. My French is very rusty so I can't give you the name she tacked on to it, but I can give you the English equivalent which is:

MOLASSES PIE
(Guess our English friends call

same manner as carrot curls (thin slice rolled up and held together with toothpick). Chill jonquil bases and centres in ice water, tinted bright yellow, for a few hours to curl. Remove toothpick. Cut hole in each base and insert centre part of flower, using toothpick underneath to hold it in place.

To make Carrot Black-eyed Susans: Cut carrot crosswise in thin slices. Insert toothpick through 3 or 5 slices (about half way between centre and edge of slice) overlapping them to look like a flower. Chill in ice water for a few hours to curl. Attach round piece of black olive to toothpick at centre of flower.

it Trifle.) You bake a pastry shell from your favorite recipe, then while that is baking you combine these in large saucepan:

1 cup mild molasses
 ½ cup flour
 1 cup water

Stir constantly until it thickens. Take from heat and add generous lump of butter (about size of egg), ½ cup raisins, and ½ cup nuts. Stir a few minutes more. Then take from stove and cool and pour into cooled shell.

This pie cries out for topping of whipped cream or ice cream. Last week when I made it I chose pineapple and I thought the pineapple acted sort of as antidote for the sweetness of molasses. I'll whisper, "Oscar wasn't too taken with it" . . . but its rather pungent sweetness took me back to my childhood when we thought the greatest treat was to be allowed to prepare what we called "molasses bread" which was simply heated molasses into which bread had been immersed. We thought that on a par with candy.

But my mail this past month

has been full of a very different form of pie than the so-sweet one that I have quoted above. So many, many of you wrote me about the way I answered the lady who wrote in asking for the pastry for the English pork pie. By the time I read "the right way" to prepare this pastry my head hung far down on my chest with shame! And I tell you I felt properly chastened. Now, don't get me wrong, I'm really tickled to get your letters when you tell me I'm really "off the beam again". You see my mother learned her pie-making in the eastern States . . . and the Americans in that part of the country pride themselves that they can take lessons from no one. But I should have remembered that American apple or mince or pumpkin pie is one thing and English pork pie is another thing again. Definitely so. The last time that I had this question sent in was over 8 years ago . . . and do you know I made the same dumb mistake that time, too. You'd think I'd catch on or smarten up a bit, wouldn't you? (Pardon the slang). Now I have looked over

(Continued on page 34)



That Bugaboo—Homework!

WE'VE all heard many jokes about parents doing homework for their children and of course it isn't right for that to happen. But when a child is having real difficulty with some project, he or she will get along much better if one of the parents takes a little time to clear up whatever is baffling.

Since most youngsters do their homework early in the evening, either just before or just after the evening meal, it's a good idea for father to be the parent who gives a lift on the work. Mother is usually busy

preparing the meal or clearing up after it, and she sees more of the children during the day than their father does, anyway, so this is a good way to bring father and child together in a helpful, intimate way.

Most youngsters get a thrill from having their dads help them with anything and usually he can actually be more helpful in such items as mathematical problems. It is always wise for father and child to do their homework project in the child's room where they won't be bothered by household noises.



Delicious!



Serve warm, generously buttered . . . a delicious tea-time treat. If you bake at home there's never a failure when you use dependable Fleischmann's Active Dry Yeast!

NEEDS NO REFRIGERATION

ALMOND TWISTS

Measure into bowl

1 cup lukewarm water

Stir in

2 teaspoons granulated sugar

Sprinkle with contents of

2 envelopes Fleischmann's Active Dry Yeast

Let stand 10 minutes, THEN stir well.

Cream

½ cup butter or margarine

Blend in

½ cup granulated sugar

1½ teaspoons salt

Blend in, part at a time

2 well-beaten eggs

Add the yeast mixture and

1 teaspoon vanilla

Stir in

2 cups once-sifted all-purpose flour

and beat until smooth and elastic.

Work in an additional

2¼ cups (about) once-sifted all-purpose flour

Turn out on lightly-floured board; knead until smooth and elastic; place in greased bowl. Brush

top of dough with melted shortening. Cover. Let rise in warm place, free from draft, until doubled in bulk—about 1 hour.

Meantime prepare and combine

¾ cup finely-crushed cracker crumbs

½ cup blanched almonds, finely-ground

¾ cup granulated sugar

1 slightly-beaten egg

2 tablespoons water

1½ teaspoons almond extract

Punch down dough. Turn out and halve the dough; set one portion aside to shape later. Roll one portion into a 12-inch square. Spread ⅓ of square with half the crumb mixture. Fold plain third of dough over crumb mixture, then fold remaining third over top—making 3 layers of dough and 2 of filling. Cut rectangle into 18 strips. Twist each strip twice; place on greased cookie sheet. Press 2 or 3 blanched almonds into filling of each twist. Brush with melted butter or margarine; sprinkle with sugar. Shape second portion of dough in same manner. Cover. Let rise until doubled in bulk—about 1 hour. Bake in moderate oven, 350°, 20 to 25 mins. Yield: 36 twists.

4-H Clubs—Scouts—Girl Guides
Women's Clubs—Church, Social
or School Organizations

Want Easy MONEY?

Here's How To Get It

WE WANT READERS—YOU WANT MONEY!

Accept Farm and Ranch Review Subscriptions and
You'd be Surprised at
the Cash Commissions

The Farm and Ranch Review is widely known and
recognized across the Prairies as the best buy in the
farm publication field.

To help YOUR organization to raise
Money we have a special rural rate of
Only \$1.00 for a FULL TEN YEARS

Don't Miss This!

Just write on behalf of your organization to Box 620, Cal-
gary for materials and credentials—

and You're in Business

all these letters that related to this same topic and they vary so little in the ingredients and measurements and methods that I'll just give you one version: I won't give anyone credit (except silently). Wonder if I'll be around eight years from now to slip up on it again. And now with my deepest apologies I offer:

ENGLISH PORK PIE

I see on doing some more checking that the ingredients do differ somewhat, so I'll give you two and you can take your pick:

First One:

- 1 lb. flour
- $\frac{1}{2}$ tsp. baking powder
- $\frac{1}{2}$ tsp. salt
- $\frac{1}{4}$ lb. lard
- $\frac{1}{2}$ cup boiling milk is added to this for moisture.

Second One:

(For larger quantity)

- $2\frac{1}{4}$ lbs. flour
- 1 lb. lard
- $\frac{1}{2}$ oz. salt
- 1 egg
- 1 cup boiling water

Combine all ingredients except hot water or milk, and add this last. Knead dough until free from cracks. This pastry is not supposed to be rolled, but rather moulded with the hands on a form. (Many state that they use a quart sealer for the form). Leave on form until cool then lift off very carefully and place in bake dish.

Now here is where we have another difference of opinion. Some state the pork filling is added after baking and some say before with a "lid of pastry" having a large steam vent in it.

PORK FILLING

- 3 lbs. minced pork
- Salt and pepper to taste
- $\frac{1}{4}$ tsp. cayenne pepper

Pie should be baked about $1\frac{1}{2}$ hours in moderate oven lowering the heat a little the last $\frac{1}{2}$ hour.

Hope Mrs. J. A., Stonewall, Man., can make something of this for she was the writer of the original request.

By bye for now...and every good wish. Aunt Sal.

Pets well fed

ONE British pet food manufacturer (cat food) is said to turn out more than one million cans each week, or a bigger output than any British cannery turns out for human consumption.

There are about nine million cats and dogs in the United Kingdom, and it costs 70 million dollars (in manufactured foods alone) to feed them.

More than 5 million cats and nearly 4 million dogs consume most of the U.K.'s imported whale meat, besides enormous quantities of fish, whole wheat and liver.

Good year for dairymen

A GOOD year for dairymen is coming up according to the Canadian Department of Agriculture. It estimates production will be slightly higher than in 1957, or about 17,500,000 pounds. The department thinks that prices will be steady or higher than the 1957 averages.

Poor grains not wanted

"TOO many farmers in Western Canada continue to grow unlicensed, inferior and unrecommended varieties of grain crops. The farmer who grows unlicensed grains of poor quality is not only his own worst enemy," but he is riding on the backs of his neighbors who grow licensed top quality varieties because his poor quality grain gets by only as it is mixed with good varieties. The final effect is a general lowering of Canada's grain quality. The farmer who grows inferior grains is working against the best interests of the western farmer." This is the opinion of Western Canada Line Elevator Companies.

In this regard the United States department of agriculture last year listed 31 varieties of grain which it considered undesirable to grow because of inferior milling or baking qualities. These "outlawed" varieties were discounted 20c a bushel. Australia, fighting the same problem, is said to be considering a similar system of price discounts.

Early seeding for flax

LATE-MATURING varieties of flax such as Rocket and Redwood produce the highest yields under most conditions at the Indian Head Experimental Farm. However, if late seeding from mid to late June is necessary, an early-maturing variety like Marine or Raja gives more reliable returns. The chances of getting a high yield with any variety of flax are poor if seeding is delayed past the middle of June, authorities say.

An experiment at the Indian Head Experimental Farm for the past four years indicates how Rocket, Redwood, Marine and Raja perform when sown at six different dates during the spring. The first date has been about May 12 and the last date about June 22. The yield of Redwood has been about 20 bushels per acre when sown in May, but when sown in June the yields drop sharply with each delay in seeding.

Rocket yields slightly less when sown in May and about the same as Redwood when sown in June.

Raja, an early-maturing variety, yields considerably less than Redwood when sown any time in May, but its yield does not start declining unless it is sown after the middle of June.

The yield of Marine is quite similar to that of Raja at each

date of sowing except that when sown in May it produces slightly lower yields.

Even though the yields of these four varieties may not be too low from the early and mid-June dates of seeding, the grades are usually reduced because of frozen and discoloured seed. Results indicate that late-maturing varieties such as Redwood and Rocket should be sown for best results before the first of June. Raja and Marine which are early-maturing varieties can be sown as late as June 10 and still give a satisfactory yield of good quality seed in most years.

Roll out the barrel

CANADIAN dairymen can be thankful they are operating here and not in Germany. A consumer's research group estimates that 90% of Germans drink beer as a main beverage. Milk drinking introduced by Canadian and American troops in Germany is gaining considerable popularity and is being counter-attacked by the Brewers on the grounds that excessive milk drinking may precipitate the formation of kidney stones. Possibly the truth is that in the extra of beer stomachs a little thing like a kidney stone is just lost.

Extra care needed for flax

SEEDBED preparation is important in growing flax. Flax requires more exacting conditions for germination and emergence than does wheat, oats or barley.

The seedbed should be shallow, firm, moist and relatively weed-free to promote rapid germination and emergence.

Observations at the Experimental Farms indicate that working the area as soon as is practical serves two purposes: weed growth that has started in the early spring is destroyed and the surface soil is disturbed sufficiently to prevent the soil from baking.

A subsequent operation with a rodweeder in about ten days or two weeks prior to seeding will destroy any weeds that have started and provide for a relatively shallow, moist and firm seedbed. Occasionally, it may be necessary to rodweed the area a second time in order to "firm-up" the loose soil.

This method of seedbed preparation may also apply to other small seeded crops.

The Army is seeing snakes

Life in Egypt is not as romantic as we may imagine. The Canadian army in Egypt reports that more than 100 varieties of snakes, 9 of them poisonous, are along their lines. Standing orders are against sleeping on the ground, and to not put on an army boot before looking into it. Trenches two feet deep and a

foot and a half wide must be dug around all tents. Besides snakes there are scorpions (whose bite is not fatal but very painful), malaria-carrying mosquitoes, and rabid dogs running wild. On March 31st, to add to these pests, the temperature at one camp was 110 degrees, 20 degrees less than the top temperature at some of the outposts last year.

North Star Oil search

NORTH STAR OIL LIMITED is making plans to enter actively into an Exploration program across the west.

Organized in Winnipeg, the Company which claims that 97% of its stock is Canadian-owned, already has 363 bulk plants serving the agricultural and industrial trade, and over 1,000 company and dealer-owned

service stations. At both the St. Boniface, Man., and the Peace River refineries, western crude, for prairie use, is processed.

95% LIVABILITY GUARANTEED

by PRINGLE'S on

"H and N" Nick Chick Leghorn pullets for first 8 weeks if raised under normal brooding conditions.

Nick Chicks will lay in 4½ to 5 months and will return more profit than other breeds on the market today

Sold as pullets only, \$42.00 per 100.

95% guarantee as above also applies to Parmenter Reds, the famous brown egg layer.

Pullets. Unsexed

\$36.75 per 100. \$17.85 per 100

HART SCHNEIDER B.B.B. TURKEY

POULTS, \$75.00 per 100.

NICHOLS MEAT STRAIN CHICKS

SOLD UNSEXED ONLY, \$18.00 per 100

Pullets Unsexed

Parlay 333 Cross-Breds \$34.75 \$15.85

Light Sussex 27.70 16.85

DEMAND IS HEAVY — ORDER NOW!

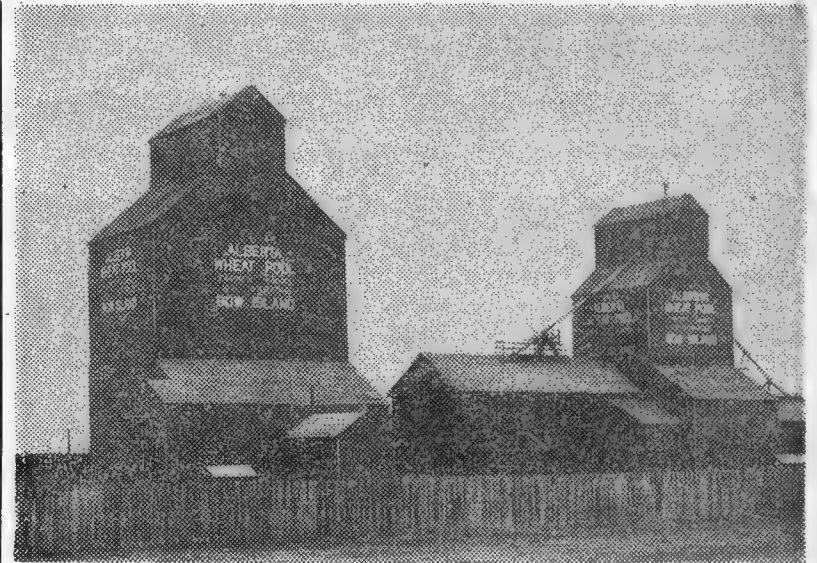
PRINGLE HATCHERIES

Calgary — Edmonton — Chilliwack, B.C.

BUILD CANADA FOR CANADIANS

by

Supporting Your Co-operatives



According to official figures, 52 per cent of all Canadian industry is owned outside of Canada.

Co-operatives are 100 per cent owned and controlled by you, the people of this country, and are operated for your benefit.

Keep them strong by patronizing them at every possible opportunity.

ALBERTA WHEAT POOL

Farmer Owned Co-operative

Something—

from The North Side

Members of the Central Alberta Dairy Pool

Some few years ago I qualified as a twenty-five-year shipper. In other words, I have been shipping to our organization at least twenty-five years. Twenty-five years seems quite a long time, and it is; generally speaking it marks the movement from one generation to the succeeding one. In the life of a business organization it doesn't allow too much time, in many cases, for a great number of changes.

In our farming operations we have gone from horses to tractors, from buggies and wagons to automobiles and trucks, from the ordinary seeder and 6 to 8-ft. binder to the one-way tiller and seeder combined, or the tractor pulled seeder and the combine or the swather and the thrasher. This has all happened in less than twenty-five years.

Likewise in our organization we have gone from the one plant to a number. The one plant which in those days at the start was Alix, because of the methods of transportation, etc., it was quite practical to have just the one plant. Now because of the change in our method of living and moving about, one plant would not serve our membership, as it was able to do in earlier days. Because we have a number of plants now serving our membership, a bigger percentage of our cream gets in the higher grades. In addition to that, quality of our butter from that cream is on the average higher than it was in the earlier days. Expanding a bit, from having all our milk delivered in the form of cream, we now have some of our members delivering some of their milk in milk form, either to a fluid milk plant or to the Condensery or for some other manufacturing purpose. The additional plants thereby give our members more opportunity to supply goods in the form of their desire than was possible in the early years.

At the same time our organization in itself is strengthened by having more diversification of products it handles than was possible when our Dairy Pool was incorporated back in the late twenties. We are now able to give better service to our members on an individual level than was possible at any time up to the last few years.

Capitalwise, we have all these facilities and none of us has had to invest even a small sum of share capital in the business. Surely we have a record that we can be proud of. It has taken loyalty on the part of the shipper, equal loyalty and interest on the part of the men and women who are in our plants, patience and guidance by our delegate body and in particular our board of directors. Our organization is able to thus provide good service today, and is in a position to meet any challenge there might be in the days that are ahead.

As an old-time member, a delegate and a director, I am indeed proud to have had this association with our organization and I am sure that its future will be at least equal, and perhaps even better, to its accomplishments up to this time.

Co-operatively yours,

J. A. ROSS,

Director of District No. 4

and Secretary of the Board.

Central Alberta Dairy Pool

"Owned by the people it serves"



Breakfast in bed

Dear Sir :—

.... I sure liked the two editorials, "Let's Keep the Gas" and "Breakfast in Bed" (They) sure hit the nail on the head in regards to the labour problem. The Western Producer, owned by us Wheat Pool farmers, has never shown a profit in all its years of operation due mostly to high overhead ... mostly wages paid to labour.

It has been going in the hole from \$30,000 to \$150,000 a year, yet last month, when its producer had a chance to make a little money with election printing and election ads in the paper, Labour led by its American dictators went on strike. Labour finally won. We showed a loss on the Western Producer in 1957 of \$130,000. What will it be in 1958 when labour will get bigger and better coffee breaks, shorter hours and bigger pay? Labour pulled the same stunt several times before on us farmers, during the railway strike, the terminal elevator strike, etc.

Yours truly,
Albert Kessel,
Biggar, Saskatchewan

Coyotes and cranky friends

Dear Sir :—

It is with interest I have read two letters in your paper recently. One re war on coyotes. Apparently two of these gentlemen claim coyotes kill mice and do not harm poultry nearly as much as they are blamed for. Then why do they not kill all the mice that are moving like ants on our farms rather than raid our hen houses as we have already witnessed? Maybe these fellows would like to come and get our coyotes. There are plenty of the brutes in our river breaks and coulees ...

Then to the man who so angrily rebuked your paper, charging you try to tell the folk how to vote and says your paper never did contain much of any value. What do you want, Sir, for your money? You pay very little for the paper, and I have yet to find one single paper that devotes its pages to our home province news ... I think you get excellent value for your money.

Farm and Ranch Review editors are among the few men who have the gumption to speak out ... We need more editors like the boys on the Farm and Ranch Review. Good work, boys, you're doing O.K. We like your paper even if our cranky friend doesn't.

Yours truly,
B. R.,
Medicine Hat.

Hidden power

Dear Sir :

Your editorial, "Hidden Power", makes me wonder as to who's to have what power. If a person with a bill of goods for sale comes into our homes insisting that we need the goods, we would be very much put out about it. Yet it can be done through the use of radio and there is nothing we can do about it other than turn off the set ...

If we tune in the CBC and CKUA we know there will be no rock-&-roll and crying cowboys, but a lot of good classical music, etc. And that's why I spent a lot of money for a hi-fi radio ...

Let us be free to take what we want of the air waves and not make another mockery of freedom.

Yours truly,
W. D. Harvey,
Kitscoty, Alta.

Production costs

Dear Sir :—

... No business in this world can exist even with hundreds of thousands of dollars of cheap — very cheap — loans, as long as the costs of production are higher than the prices which farmers receive for their products. It doesn't need a high school education to find out that no one can fill a leaking pail with water with a strainer ...

Yours truly,
C. Tugnum,
Smithers, B.C.

Socialist triumph ?

Dear Sir :—

... When I write of socialism, or think of it, it rolls out of my system faster than I can write it.

I am one of the old Alberta U.F.A. that used to think they had a cure for everything also ... I have just returned from a visit to my neighbors ... (who) farmed in Saskatchewan for over forty years, but left when the CCF went into power. Too much dictatorship! ... if the people ever tried to put socialism in here, that would be the end of progress for the country ...



AJAX BARBER COLLEGE? WOULD YOUR STUDENTS LIKE TO GET SOME PRACTICAL EXPERIENCE DURING SPRING SHEEP SHEARING?

I wonder why the working man supports the CCF as they do in B.C. when it is Capital that is providing him with his take-home pay... I would like to ask the people of Saskatchewan, why didn't they develop their natural resources themselves? The answer should be plain to them. No money! I used to hear Mr. Roper of the CCF say in Alberta, if we are elected... we will immediately take over the natural resources. So I asked him where he would get the money. He said he would sell debentures... so I said who would buy them — the U.S.A. and Eastern Canada. Who would own them — and so it goes. They go around here and say the same thing. We will take over the B.C. Electric, B.C. Telephone and all the natural resources — what a sorry day for B.C.

That is some of the trouble to-day with the teacher problem here. They are starting to dictate; the majority, I think, are CCF and most of the (political) candidates are teachers.

Yours truly,
W. Wraight,
9673 - 117B Street,
North Surrey, B.C.

Claim fluoride big success

NORWAY, Maine, the first town in Maine to add fluorides to its drinking water, claims that its six-year-old children, after five years of treated water, show 90% less decay in their permanent teeth than the same age group did five years ago.

Potatoes make good feed

USE those small, and off-grade potatoes, to advantage. Results at experimental farms show that 500 pounds of potatoes when fed with alfalfa, hay, or grain are equal in feed value to 100 pounds of grain in feeding cows and fattening lambs.

Some care is needed, however, in feeding potatoes to livestock. Potatoes are similar to silage, being about 80% water. They are lower in proteins, essential minerals, and vitamins than usual feeds and should, therefore, be fed with quality feeds (legume hay, or cereal grains) or with a protein mineral supplement. Stock do not always like potatoes at first, so they should be introduced gradually.

Potatoes should be cooked for hogs, but can be fed raw to cattle and sheep. They should be sprouted before feeding. Frozen or spoiled potatoes are sometimes poisonous and should not be fed to any stock. Potatoes should be fed milking cows immediately after milking to avoid any tainting and at a rate of not over 30 pounds daily.

Farmers need money

AMERICAN farmers and their marketing and purchasing co-operatives borrowed \$3.3 billion from credit co-operatives in 1957, a new record and an increase of \$368 million over 1956. Chief causes, it is said, are the continued increases in farming costs, and farmer's efforts to develop more practical family-size, mechanized farming units.

More beef competition

THE Venezuelan government is giving its beef industry a \$200,000,000.00 shot in the arm, in launching a five-year development program to improve breeding stock. New ranches are being established, pastures and water supplies improved, and beef breeding cattle imported to improve native stock.

Water conservation aid

HEXADECANOL, a chemical for around 60 cents a pound (commonly used in cosmetics) probably is the solution to conserving water in farm dug-outs, ponds and reservoirs. It is said to slow down water evaporation by 25 to 30%. The only problem in its use is one still to be overcome by researchers — how to spread a pound of the greasy substance over an acre of water. It is a problem expected to be solved in the near future.

Ask before you buy

WATCH what you buy for spring planting!

The Manitoba Department of Agriculture warns that disappointments may be avoided in ordering plants and shrubs if information is first obtained from your nearest Experimental Farm, Agricultural Representative, Horticultural Society, or local nurserymen. Any of these people can advise you what is suitable for your climate and district.

At this time of year, the department states, many people receive beautifully colored and worded advertising material urging them to landscape, grow their own fruit, or branch into other lines of gardening. Such advertising may be reliable — or it may be loaded with headaches for the amateur.

Most nurserymen, the warning continues, advertise in good faith, but many have reared their stock and make sales in a climate much more favorable than ours. Any gardener, therefore, must be well acquainted with the trees, shrubs and perennials which can be successfully grown on the prairies.

Free crop testing seeds

THE Searle Grain Co. is continuing a service started several years ago with very successful results, the Crop Testing Plan will again be glad to send, as long as the supply lasts, a set of true-to-variety seeds of

some 30 different varieties of grains, ready for seeding, to any farmer willing to sow and care for a small plot on his farm.

These lots of seed include not only the standard varieties of wheat, oats, barley and flax but also some of the newer varieties licensed recently. As the number of sets available is strictly limited, preference will have to be given to requests received from districts at a distance from an Experimental Farm. In this way, those who would not ordinarily have the opportunity of seeing and comparing the various varieties under test will be able to have a local plot, at

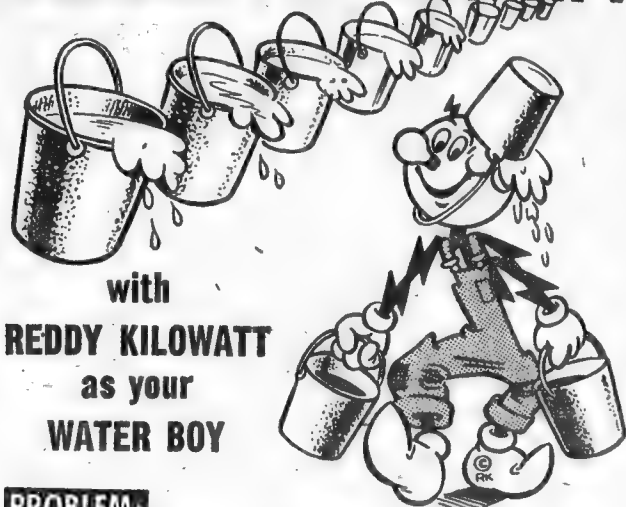
home, that will be of interest to themselves and the whole neighborhood.

Those interested should apply to: The Crop Testing Plan, 365 Grain Exchange Bldg., Winnipeg 2, Manitoba.

Reason for high repair bills?

BOTH union officials, and the vice-president of the Canadian Federation of Automobile Dealers, people with a vastly different viewpoint on some things, are in agreement that the new cars are suffering from poor quality.

BUCKETS of WATER!



PROBLEM:

Nobody on our farm likes pumping, lifting and lugging water. Yet, we need it for the livestock, poultry, crops and dozens of household uses.

SOLUTION:

Let Reddy do it! There's nothing like the convenience of having running water on the farm — and there's no one that can handle the job quicker, better and more economically than Reddy Kilowatt.



CALGARY POWER LTD.
HELPING TO BUILD A BETTER ALBERTA



CANADIAN UTILITIES
LIMITED

A gift that lasts...

SPECIAL LOW RATE TO FARM FAMILIES IN THE FOUR WESTERN PROVINCES

The FARM and RANCH REVIEW

Looking for a special gift for a Birthday, Father's Day, Anniversary? Why not the FARM AND RANCH REVIEW? For a special rural rate of one dollar each, the Farm and Ranch Review will be mailed to any friend or relative every month for the next ten years. The best bargain in the farm publication field, and truly the gift that keeps giving for a full ten years.

Just attach one dollar to this coupon and send it to —

FARM AND RANCH REVIEW

P.O. Box 620,
CALGARY, ALBERTA

NAME _____

ADDRESS _____

NEW _____ OR RENEWAL _____

CLASSIFIED ADVERTISING

BUSINESS OPPORTUNITIES MEN - WOMEN

EARN MORE! BOOKKEEPING, SALESMANSHIP, SHORTHAND, TYPEWRITING, etc. Lessons, 50c. Ask for free circular No. 34. Canadian Correspondence Courses, 1290 Bay Street, Toronto.

DOLL HOSPITAL

ALL MAKES OF DOLLS REPAIRED by experts. Rubber arms and legs bought. 324 - 24th Avenue S.W., Calgary, Alberta. Phone AM 9-7239.

EDUCATIONAL

AUCTIONEERING CAN BE FOR YOU. Write for information. Western College of Auctioneering, Box 1458-FR, Billings, Mont.

FARM EQUIPMENT DEALERS WANTED

Here's your chance to sell the world's leading grain bin! Butler Manufacturing Company (Canada), Ltd., is looking for dealers in your territory to stock and sell Butler bins, bulk feed tanks, and utility and livestock shelters. This is an unusual opportunity to increase your volume — and your profits. Mail inquiries to Farm Equipment Division, Butler Manufacturing Company (Canada), Ltd., Dept. 13, P.O. Box 506, Burlington, Ontario.

LIVESTOCK

YOUR LIVESTOCK COMMISSION AGENT, PAUL & MacDONALD, prompt, efficient service. Office telephone 5-5301; Residence CHery 4-0485; 87-1738, Calgary, Alberta.

PARSLOW & DENOON, Stock-yards, Calgary, Alberta, the oldest Livestock Commission Merchants in Alberta. Established since 1915. Office 5-5058; 5-755; Night: CHery 4-1651; CHery 4-2848.

ADAMS, WOOD & WEILLER LTD., livestock Commission Agents, Alberta Stock-yards, Calgary. Phones: 5-5121; Nights: CHery 1-8075; CHery 4-2650.

LUMBER FOR SALE

FARMERS AND CONTRACTORS No. 1 Dressed Dry Poplar Ship lap and Dimension precision trimmed to 8 ft. only. Ideal for granaries, machine sheds, etc. \$35.00 per thousand on rail or trucks. Contact: Olney Lumber Co. Ltd., Slave Lake, Alberta.

PERSONAL

TO CHARLIE FREEMAN. Write me again. Emil Lorentson, Bindloss, Alta.

\$500 FOR YOUR CHILD'S PHOTO, if used, for advertising. Send photo for approval. Returned 2 weeks. ADVERTISERS, 6000-FXS Sunset, Hollywood 28, California.

AUTHORS INVITED SUBMIT MSS, all types (including Poems) for book publication. Reasonable terms. Stockwell Ltd., Ilfracombe, England. (est. 1898.)

YOUR OWN RUBBER STAMP! Three line rubber stamp with your name and address. Enclosed in plastic case complete with self-inking pad. For printing your own stationery, books, cheques and other personal articles. Many uses. Makes ideal gift. Guaranteed satisfaction. Special Offer: 1 for \$1.50, or 3 different for \$4.00. Print name and full address clearly. Reliable Agency, Box 5, Regina 10, Sask.

DRESS GOODS — 19c yard. Beautiful Crepes, Taffetas, Broadcloths, gorgeous colours. Pieces up to 4 yards. Good for dresses, skirts, etc. 15-yard bundle, \$2.79. \$3.00 postpaid with money order Schaefer, B370 Drummondville, Quebec.

REINCARNATION—I shall return to earth by means of a new birth. I may be reborn calm and strong. George Sand.

TRACTOR PARTS

DEPRESSION PRICES! WE SELL CHEAP, SAVE 75% off new and used tractor parts, crawlers and wheel tractors. 190 makes and models. 1958 catalog ready. Send 25 cents, refundable. Surplus Tractor Parts Corporation, Fargo, N. Dak.

HORSE TRAINING

"HOW TO TRAIN HORSES" — A book everyone who likes horses should have. FREE. No obligation. Simply address Beery School of Horsemanship, Dept. 665, Pleasant Hill, Ohio.

The Farm and Ranch Review is the best bargain in the farm publication field.

High price of water

THE price of water runs high in many places. The State of California is planning construction of the largest dam in the world at a cost of nearly 2 billion dollars, tapped by a 585-mile aqueduct to carry water to cities and parched farm lands.

Japan big buyer

JAPAN, like Canada, does more importing than exporting. Japanese imports for 1957 were \$4.3 billion; her exports \$2.8 billion. The import figure, due to larger imports of petroleum, coal, iron ore, scrap iron, iron and steel products and machinery, was up more than 33% over the previous year.

On the future of farming

Mr. E. S. Manning, managing-director of Canada Packers, speaking to the Meat Packers' Council of Canada, recently warned that, agriculture like any other part of the economy cannot resist the impact of development without itself making substantial adjustment.

Commenting on the Gordon Commission on Canada's Economic Prospects he said its findings carried a "weight of opinion worthy of the most serious consideration in evolving policies concerning agriculture."

He described the report as projecting a continued change in agriculture, with a further reduction in the number of workers which in turn would involve larger farms with increased capital investment. "This suggests," he said, "that commercial family farms will increasingly, take on characteristics of business organization. The trend toward rising production expenses will continue and the farmer will spend more of each

dollar he receives for goods and services required to run his business."

"There are many schools of thought," he said, "as to a solution, but of necessity there will be adjustments, and adjustments are always difficult to make."

He suggested two approaches — price support and stabilization programmes or farm marketing legislation — as a means of counteracting the "cost-price" squeeze.

Bees need windbreaks too

"BUTTON up your overcoat" apparently would be good advice for honey bees as well as people. The most important factor, say the experts, for successful beekeeping is proper shelter from spring winds.

This means natural or artificial protection from prevailing winds, a sunny exposure and good air drainage. The bee yard should be located on dry grounds and close to good roads. The location is so important that most beekeepers spend considerable

time selecting the ideal place for spring build up. Another important factor is that of colony arrangement. Long, orderly, straight rows of colonies are very confusing to the honey bee and causes drifting into wrong colonies and often results in the queen being killed. Random arrangement of colonies with odd spacing and near small shrubs or other landmarks will help the bee to find its own home.

In a new bulletin, "Package Bees, Their Introduction and Care," there is an illustration showing an almost ideal bee yard. It is available upon request to the Experimental Farm, Brandon, Manitoba.

DAVERN LANDRACE

There is no breed to match the Landrace Hog for meat-producing qualities, fast feed conversion and large litters. Leading among Canada's Landrace is the famous Davern herd, reared under ideal conditions in Southern Ontario and strengthened by regular imports from Scotland. The strict standards maintained ensure that only the finest gilts and boars are offered to breeders and feeders. Write today for information.

DAVERN FARMS LTD.

Box 386 Hamilton, Ontario

Solution To Crossword Puzzle

C	H	A	O	S	S	P	E	A	R	R	H	E	A	S	C	H	E	S	S
R	I	A	T	A	P	A	T	I	O	E	E	R	I	E	O	A	T	E	N
E	A	T	T	A	L	D	I	T	A	N	C	N	R	R	O				
A	T	T	A	S	T	A	G	E	S	A	R	B	O	R	C	E	D	E	R
T	U	R	R	E	T	T	I	T	R	I	T	E	E	L	E	M	E	N	T
E	S	E	D	A	L	E	J	E	A	N	S	S	T	A	R	Y	E	S	
T	H	R	I	C	E	P	O	K	E	S	S	L	A	V	E	C	H	A	P
H	A	U	N	T	B	A	R	E	D	C	H	I	V	E	C	R	A	N	E
O	R	N	E	G	R	I	T	S	S	H	O	N	E	C	H	A	S	T	E
R	E	E	P	L	A	N	S	S	T	A	R	K	C	H	O	P	P	E	R
C	U	R	R	E	N	T	G	L	I	N	T	D	R	O	N	E	O	T	O
O	N	I	O	N	S	G	L	A	C	E	F	A	I	N	T	F	L	A	G
L	A	M	P	S	S	H	A	C	K	D	E	L	V	E	Q	U	I	R	E
A	L	E	E	S	H	A	R	K	P	E	R	L	E	E	U	R	O	P	E
S	E	N	A	T	E	C	A	N	N	Y	O	N	E	S					
S	H	U	R	E	T	S	B	E	S	T	S	U	R	N	S	S	P	A	
C	A	L	U	M	E	T	D	E	L	T	A	O	N	U	T	T	E	R	S
O	T	O	M	I	E	R	G	A	L	T	A	H	I	T	I	E	R	I	S
U	T	B	N	R	I	M	A	I	L	T	O	O	M	E					
T	I	N	E	E	N	T	E	R	O	T	H	E	R	U	P	S	E	T	
S	C	A	R	S	D	E	E	D	S	N	O	I	S	Y	R	O	A	R	S

IF YOU DON'T TELL IT — YOU CAN'T SELL IT

A single want ad in the Farm and Ranch Review will tell your story to
A QUARTER-MILLION READERS!

USE THIS WANT AD FORM

Write clearly. Name and address, if used, are part of the ad. and therefore chargeable.

Cash must accompany order. 12c a word; minimum charge, \$2.50.

THE FARM AND RANCH REVIEW, Box 620, Calgary, Alberta.

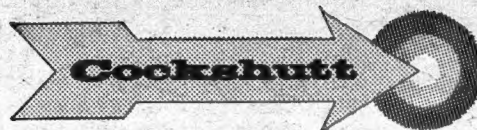
Please insert the following Classified Advertisement:

FOR OFFICE USE ONLY

Enclose \$..... No. of insertions..... Heading.....

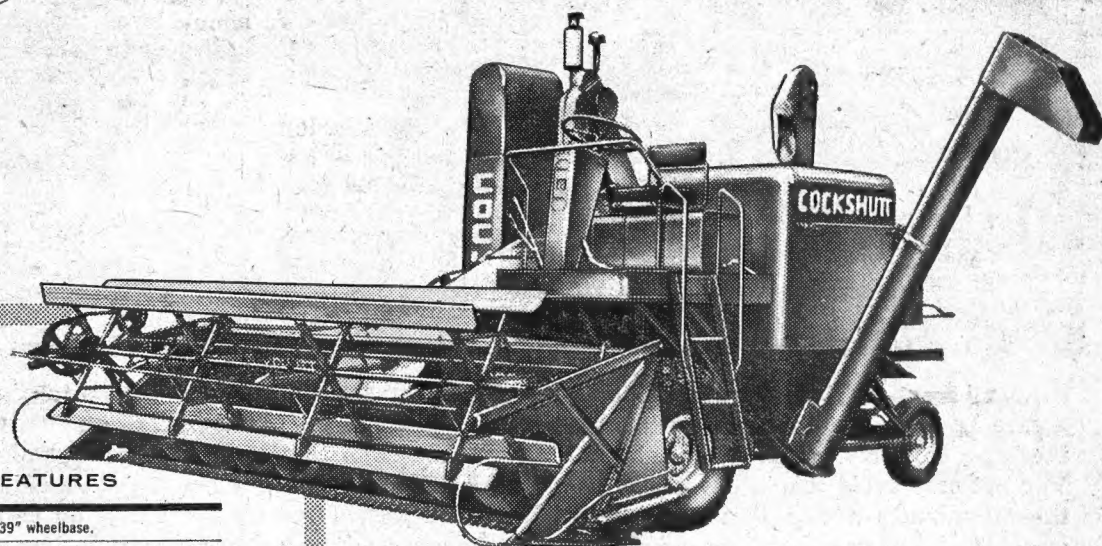
NAME.....

ADDRESS.....



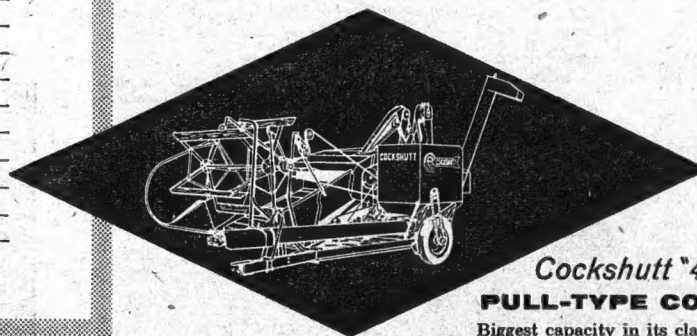
Cockshutt combines combine the best

Big capacity pays off—In Cockshutt combines you get the combination of big threshing, separating and cleaning capacity *plus* easy operator control. When shopping for your combine use the check list below to make sure you get all of the features that count most in getting *more* grain out of your field *faster*. When you compare, you will choose a Cockshutt because only Cockshutt gives you *all* the most wanted combine features.



SELF-PROPELLED COMBINE CHECK LIST

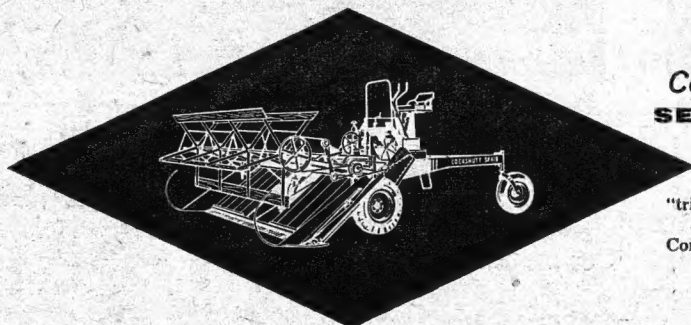
Cockshutt SP-427 DRIVE-O-MATIC	Cockshutt SP-428 DRIVE-O-MATIC	OTHERS	FEATURES
✓	✓		Longer 139" wheelbase.
✓ (32")	✓ (37")		Large body width to handle heaviest crops.
✓ (35 gal.)	✓ (35 gal.)		All-day fuel capacity for less delay in fields.
✓	✓		Twin hydraulic header lift.
✓	✓		Safety lock header hydraulics.
✓	✓		Low range cutting (under 2").
✓	✓		Foot operated variable speed drive.
✓	✓		Easy access cylinder hood.
✓	✓		12 bar reversible type concave.
✓	✓		Quick change concave clearance.
✓ (3744 sq. in.)	✓ (4329 sq. in.)		Extra large separation area.
✓ (2898 sq. in.)	✓ (2898 sq. in.)		Extra large cleaning area.
✓	✓		Extra large 60 bushel grain tank.
✓	✓		Swing back unloading auger.



Cockshutt "422" PULL-TYPE COMBINE

Biggest capacity in its class—greater threshing capacity, unequalled separation and cleaning surface—more than many of the big self-propelled combines. 66" straight through body. Giant 4-riser straw rack. Big 26 bushel grain tank.

These set the big capacity standards in their class, too...



Cockshutt SP "419" SELF-PROPELLED SWATHER

Builds criss-cross windrows that lay high and loose on the stubble for fast drying, easy pick-up. Variable speed drive, "trim" steering. Reel and platform raised and lowered by foot-controlled hydraulics. Comes in 10', 12', 14' or 16' models. Modern spray attachment available.



The Cockshutt Way... Makes Farming Pay!

You grease this Baler **ONCE A YEAR**



Hard to believe...but true. All normal grease fittings are replaced with sealed bearings; no worry, no messy greasing job. You not only avoid this inconvenience, but the 30 minutes a day that you'd spend greasing an ordinary baler means an *extra*

5 tons of hay baled every day with the Massey-Ferguson No. 3 Baler. And from gentle pickup to tight, well-shaped bales, this Baler pampers the hay to give you leafy, protein-packed feed. Simple to hook up, easy to operate, adjust and manoeuvre, the No. 3

Baler slips through an eight foot gate with room to spare. Six different safety features for the operator and the machine complete the line-up of extras that make the Massey-Ferguson No. 3 the most-wanted Baler in the world... at any price.



The Dyna-Balance mower cuts low and clean with a "ground level" drive that eliminates the noisy pitman. It's whisper quiet and free from vibration... easy on you, the tractor and the mower, and lets you operate the knives up to 30% faster. Loosen only one nut to take out the knife... no bothersome shimmying adjustments to make. Rear mounted, or side mounted for increased visibility, Dyna-Balance mowers raise or lower with finger-tip control.

Massey-Ferguson hay tools are designed with many features unobtainable in ordinary haying equipment. From the gentle yet efficient handling of the crop to the effortless ease with which they are operated, Massey-Ferguson hay tools stand out from any others made today. A demonstration will prove to you that you'll make hay pay with any of these dependable grassland tools. See your Massey-Ferguson dealer soon.



The original 6-bar side delivery rake lifts the hay gently from swath to windrow in only half the distance of conventional rakes. This means light fluffy windrows and food-rich leaves. The 7 or 8 foot P.T.O. 3-point hitch models mount easily. And there's an 8½ foot ground-driven pull-type too which incorporates the famous features of the other models.



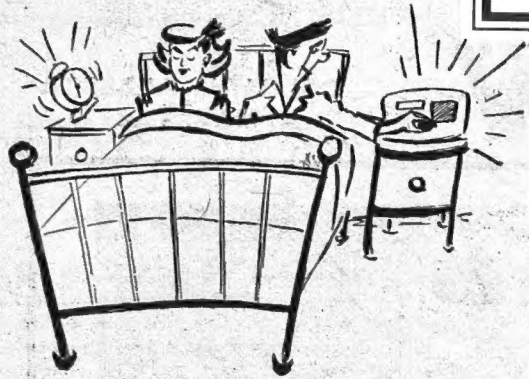
Now it's **MASSEY
FERGUSON**

Massey-Ferguson Limited, Toronto
World's most famous combines and the
only tractors with the Ferguson System



EX LIBRIS
UNIVERSITATIS
ALBERTENSIS

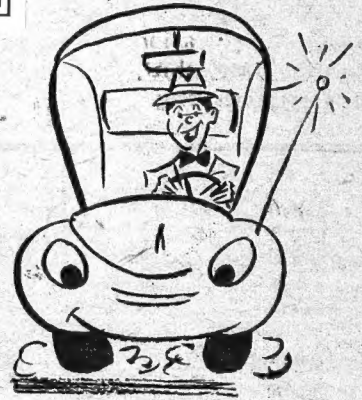
EVERY DAY —



COFFEE with CORRIGALL

6:00 - 9:00 a.m.
DAILY.

9:10 - 11:10 a.m.
DAILY



ROLLING HOME

5:00 - 6:00 p.m.
DAILY.



ASSIGNMENT

8:00 - 8:30 p.m.
MON. to THURS.



Keep Informed with . . . **RADIO CFQC**

'Round the clock
NEWS BROADCASTS

Featuring

The World Today
at 12:15 p.m.

and

THE WORLD TO-NIGHT at 11:00 p.m. with
17 supporting News Casts from 1:00 a.m. to
12:00 Midnight.

Listen to the CFQC Public Service Feature
for the Farmer of Tomorrow . . . **Saskatchewan
4H Club Broadcasts** . . . 4:45, Saturday after-
noons.



Bill Cameron . . . CFQC News Director

CFQC

600 on any Radio Dial